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Factors Occurring in Youth Suicide Behavior in Oregon

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FACTORS OCCURRING IN YOUTH SUICIDE BEHAVIOR IN OREGON

by

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DISSERTATION APPROVAL

The abstract and dissertation of Kathy Goss for the Doctor of Education in Educational Leadership: Administration and Supervision were presented November 30, 1995, and accepted by the dissertation committee and the doctoral program.

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ABSTRACT

An abstract of the dissertation of Kathy Goss for the Doctor of Education in Educational Leadership: Administration and Supervision presented November 30, 1995.

Title: Factors Occurring in Youth Suicide Behavior in Oregon

There has been an epidemic rate of increase in youth suicide since 1960. Professionals, teachers, counselors and parents want to identify youth at risk of suicide and intervene prior to an attempt or a suicide. The premise of this study is that youth who display similar risk factors as past attempters and completers may be at risk of attempting themselves and can be identified by these risk factors. This is a quantitative and descriptive study of youth suicide attempters and completers in the state of Oregon in 1989 and 1990 in an effort to further identify risk factors of youth suicide attempters and completers.

The researcher petitioned the Oregon Center for Health Statistics and obtained databases of 1150 youth attempters and 40 suicide completers. The attempter

database was compiled from a legislatively mandated informational form filled out in public and private hospital emergency rooms for anyone under 18 sustaining injuries due to a suicide attempt. The second database is compiled from death certificates for youth under 18, specifying suicide as the cause of death. Data, both in the number of cases, and in the depth of the material is sparse on suicide completers.

The first question employed both databases to examine the demographic similarities and differences between youth suicide attempters and completers in Oregon in 1989 and 1990.

The second and third research questions are answered using the attempter data base. The second question is an in depth examination of 18 social, psychological and behavioral factors taken from the attempter database, resulting in a description of the youth who have previously attempted in Oregon in 1989 and 1990.

The third research question again studies the same 18 social psychological and behavioral factors of the attempter population, dividing it into subgroups of sex, race, and age. Through crosstabulation and the chi-square tests of statistical significance, each group was specifically described.

A fourth research question called for a qualitative focus group of professional suicidologists who confirmed

the findings by comparing them to their own practical experience.

ACKNOWLEDGEMENTS

I owe a special thanks to all the friends, family and youth who contributed knowledge of the circumstances of a suicide episode to the data used in this study. I applaud those who anticipated openly despite their pain. I support the collection and distribution of suicide data by the state of Oregon. Increased knowledge about the circumstances of youth suicide and attempted suicide is the key to developing practical, comprehensive prevention practices.

An appreciative thank you to my dissertation committee, Professors Loyde Hales, Janice Haaken, and Elizabeth Wosley-George. Particular thanks to Professor David Capuzzi, committee chair and nationally renowned suicidologist, whose knowledge of the topic greatly enhanced the study.

Professor Gary Nave, also a committee member, was able to make statistics and research principles an integral part of my study. He remains my mentor and friend throughout. Without his faith and patience, this study would not exist.

Finally, my family; Darr, Megan and Randy, who sacrificed much and believed in me most--you are greatly loved and appreciated.

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CHAPTER I

INTRODUCTION

Suicide is the third leading cause of death among U.S. youth (U.S. Department of Health and Human Services [USDHHS], 1988). Youth suicide (under age 19) has increased 300% since 1950 (Davis & Sandoval, 1991). This increase has caused youth suicide to become a major health problem in the United States. Experts agree that suicide data, and thus the problem, are largely underreported. Even in its underreported state, "Youth suicide is an epidemic sweeping the United States" (Davis & Sandoval, 1991, p. 3).

Statistics speak strongly, but nothing speaks as profoundly as the suicidal death of a young person. The death often leaves family and friends not only grief stricken, but also paralyzed with self-blame. Oftentimes one suicide provides a model (cluster suicides) for other impressionable young people, extending the grief and recriminations to an even larger group. In 1985, the Secretary of Health and Human Services commissioned The Secretary's Task Force on Youth Suicide. Educators; biological, social, and behavioral scientists; other care givers; and international experts were asked to synthesize

existing knowledge. Reducing the number of youth suicides is a high priority in the public health field as well. The public health objectives for the nation set a goal of reducing youth suicide to a rate of no more than 11 per 100,000 by 1995 (Alcohol, Drug Abuse, and Mental Health Administration [ADAMHA], 1989a). The most recent (1989) national rate for youth suicide is 13.3 per 100,000 and experts agree it is likely to rise (USDHHS, 1992). The 13.3 per 100,000 rate ties the all time high rate of 1977 in this country (USDHHS, 1988). Despite concentrated efforts since 1985, the youth suicide trend is still increasing. Capuzzi and Golden (1988) stated "The identification and assessment of suicide potential is the essential component in managing and treating suicidal adolescent patients" (p. 191). This "identification" and "assessment" is integral to reducing these rising rates.

Most of us have seen the human tragedy of youth suicide on television, in books or in person, but there is an economic loss, a loss of societal productivity, connected with youth suicide as well. Weinstein and Saturno (1985) found that the average youth suicide in the United States results in a loss of 53 years of life, or $432,000 of economic productivity. By the year 2000, they estimated losses in the 15 to 25 year age group of over $2.5 billion annually. This does not even consider loss

of productivity for those family and friends who struggled with their own emotions.

Information at all levels (international, national, and state) is incomplete. It is estimated that for each completed suicide, there are 8 to 20--or some say as many as 100 to 300--attempts (Smith & Crawford, 1986). Diekstra and Hawton (1987) looked at the largely untreated and unreported population of youth suicide attempters. The large number of untreated and unreported cases (76%) are primarily responsible for the lack of credible research. These same obscured numbers often lead to a misrepresentation of the seriousness of the problem.

Although some attempters go on to become completers, there seems to be statistical differences in the two populations (Diekstra & Hawton, 1987). Suicide attempters are generally younger. Females more often attempt suicide, while males more often complete. Attempters clearly form a high risk group for youth who may commit suicide. The number of attempters who eventually complete range from 8.4% (Smith & Crawford, 1986) to 20% (Rubenstein, Heeren, Housman, Rubin, & Stechler, 1989).

What is the cause of youth suicide? There is no single clearly defined answer. Blumenthal and Kupfer (1987) pointed out predisposing factors which interact with risk factors to encourage suicide. The victims, using their own unique protective factors, ward off the

suicidal urge until precipitating circumstances cause them to cross the threshold into suicidal behavior. Davis and Sandoval (1991) expressed a similar theory, which is representative of others in the literature who describe suicidal behavior as a balance between strengths of the individual and factors of risk. It is clear that suicidal behavior is complex, multi-faceted, individually unique and extremely difficult to define or predict.

The psychological, social, and developmental stages of youth complicate suicide prediction even further. Contemporary society increases the complexity, the stress, and the length of childhood (Capuzzi & Gross, 1989). Youths face serious dilemmas regarding drugs, gangs, sex, academics, and vocations. Youths who are struggling often find these choices overwhelming. Capuzzi and Gross suggested a recent shortage of positive role models in our society, as well as a societal lack of credibility in the models we do have, as contributing factors to the increased rates of youth suicide. Michael Jackson comes strongly to mind. Recent allegations of sexual misconduct, as well as an admitted addiction to pain medication, will leave many young fans confused. These factors, as well as developmental factors, combine to add to the vulnerability to suicide as well as the difficulty in predicting this behavior.

The Secretary's Task Force on Youth Suicide devoted one full volume to the study of risk factors as a tool for early identification of suicidal risk in the school situation (ADAMHA, 1989b). The basis of this research is the identification of risk factors as the foundation of public school prevention programs. Schools provide one of the best opportunities for a wide array of people--bus drivers, school nurses, teachers, principals--to interact with students over a period of time. This puts them in the position of "gatekeeper" by watching for social, behavioral, or psychological factors identified as occurring most often among students having completed or attempted suicide. Analyzing risk factors in 1,150 youth attempters as well as 40 youth who completed suicides in Oregon in 1989 and 1990 are the substance of this study. These behavioral, social, and psychological factors of commonality were analyzed in an effort to identify a youth profile which was used in the early identification of youth at high risk of committing suicide.

Overview

Sui, Latin for "of oneself," and cide, meaning "a killing," together give us suicide, reflecting the early origin of the practice. Evans and Farberow (1988) were able to trace writings of suicide back to Egypt in early 2000 B.C. These early references spoke of suicide

ambivalently. The social attitude toward suicide ranges over the years and through various societies from complete condemnation to viewing suicide as an act that was honorable and brought the victim's family social distinction. In early Asian cultures, a custom known as suttee demanded that the widow commit suicide at the death of her husband. Hara-kiri and kamikaze still promote feelings of honor and courage. In contrast, few people in the United States are able to support or to even be ambivalent about youth suicide. The loss of a young life brings grief and tragedy to thousands of families, friends, and acquaintances each year.

Data in the field of youth suicide are gathered from death certificates and newspaper accounts of completed suicide. Oftentimes a psychological post-mortem is completed by asking questions about the victim after death. Sometimes attempted suicide data are collected through hospital, therapist, or crisis center records. As discussed earlier data related to unreported or unrecognized suicides or attempts are never added to the body of knowledge researchers are able to use.

Suicides in youths often go undiagnosed, or intentionally misdiagnosed. Even greater numbers of attempted suicides go unreported. Only 12.1% of attempters receive medical help that would allow them to be counted (Davis & Sandoval, 1991). Harkavy-Friedman,

Asmis, Boeck, and DiFiore (1987) found that only about one third of the attempters told anyone before their attempts, and fewer than two thirds reported the incident afterward. This lack of data is a severe limitation to understanding the problem itself.

Determining correlational factors is crucial to the early identification of youth at risk. The Secretary's Task Force on Adolescent Suicide sums up the importance of factors and causation and further research as follows:

> The search for etiological, correlational, and early warning signs of child and adolescent suicidal behavior has intensified, especially because of the heightened awareness that the incidence of suicide and nonfatal suicidal behaviors have been increasing in the last three decades. Current evidence suggests that suicidal behavior is a complex, multi-determined symptom. An implication of this concept of youth suicidal behavior is that investigations aimed toward elucidating the most important determinants of suicidal behavior--including diagnosis, personality traits, family and environmental factors, and biological variables--require an integrated approach that gives credence to the role of interactive effects of a number of variables. (Pfeffer cited in ADAMHA, 1989b, p. 2-71)

Recognizing the youth at risk of suicide and providing care and protection is the most crucial aspect of the prevention of suicide (Meeks cited in ADAMHA, 1989c). Youth prevention programs range from public and private clinical therapy to community resources such as crisis centers or social service counseling referrals. On an increasing basis, schools are under a legal obligation as a result of case law or a legislative mandate, to

create effective suicide prevention programs. Schools stand the best chance of observing changes in youths over time. The use of risk factors help staff who are not versed in mental health, screen large numbers of youths so that prevention and treatment may be targeted to those most likely to need help. This is even more crucial when only one suicide statistically occurs in every 10,000 youth each year. Using factors to screen youth help educators who are not knowledgeable or competent in early identification of youth who may be at risk of suicide, and need more intensive help from a professional.

International, National, and State Epidemiological Findings

International epidemiology. International suicide data are sparse. Many countries do not have a process to collect raw data. Religious beliefs, local mores, and cultural beliefs have inhibited the collection of accurate data. Given these inadequacies, trends have been developed primarily from the study of death certificates and local newspaper accounts. International suicide rates of developed nations began to rise dramatically in the early 1960s for those in the 15 to 19 age group. This rise is more pronounced in the male population, but has also occurred in the female population (Diekstra, 1988). This rate began to level off in the late 1980s and is generally continuing to stabilize in the early 1990s.

Another similar trend occurred in developed nations from the turn of the century until the beginning of Word War I. At present, suicides by youths amount to about one fifth of all suicides committed yearly in the western world (Diekstra & Hawton, 1987). The rapid rate of increase for youth suicides between 1960 and last year has triggered world-wide attention. Kreitman (1977) in Edinburgh, England showed that attempted suicide in the 15 to 24 age group increased 250% during the period from 1962 to 1974. The rise in suicide and attempted suicide among youths is an internationally studied phenomenon.

Figure 1 demonstrates the suicide rate for 15- to 17-year-olds in nine industrialized nations (USDHHS, 1988). All nations show the male population exceeding the female. The male suicide rate stretches from 4.3/100,000 youth to 18.4/100,000 youth; the United States at 16.0/100,000 youth is the third highest among these nine nations. American females share this same third position among females in these nations.

The percentage of change in suicide rates during the 24-year period between 1984-1985 and 1960-1961 showed increasing youth suicide rates in most of the world (Sainsbury, 1982). Of 18 countries, only 3 showed a reduction in suicide rate, all others gained despite international attention to this serious problem.

Looking at the larger international picture, Huffine (1989) noted the United States is near the top of all countries which collect youth suicide data. It is interesting that Australia and Canada are the only two countries with a pattern of increase that is similar to the United States. Some researchers have linked economic development to possible increases and decreases in suicide rates (Diekstra, 1988). It is interesting to note that these three countries do have similar economic status and a similar degree of industrialization.

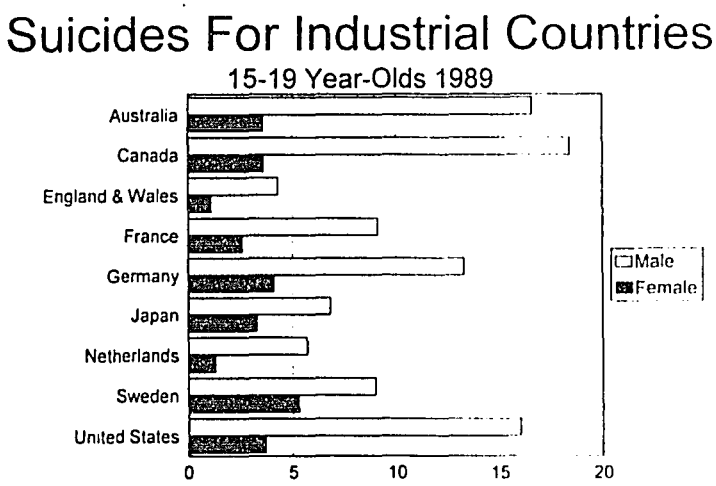


Figure 1. Suicide rates among 15- to 19-year-olds in nine industrialized countries (per 100,000 population).

National epidemiology. National youth suicide statistics are compiled by the National Center for Health Statistics, a Division of Health and Human Services. Literature consistently mentions problems with the federal

of data. First is the untimeliness of waiting for each state to compile their own data, and then forwarding this data to the federal office. This causes a two to three year delay between the suicide and the release of figures (Berman & Jobes, 1971). Secondly, the literature, including The Secretary's Task Force on Youth Suicide (ADAMHA, 1989a) points out the lack of demographic, social, behavioral, or circumstantial information surrounding suicidal deaths. Nationally, we have only age, gender, and race data taken from death certificates as background information. Vital Statistics maintains that this is due to the fact that most states do not collect any additional information. The federal government is only able to compare information in areas included by the least extensive state collection process.

The latest figures attainable through Vital Statistics use cause of death data from 1989 (see Figure 2) (USDHHS, 1992). In 1989, there were 4,870 officially recorded suicides for youths aged 15 to 24 in this country. For every 100,000 youths in this age group, there were 13.3 suicides in 1989. This rate is slightly higher than the 1987 rate of 12.9, and also slightly higher than the 1986 rate of 13.1 and the same as 1977 at 13.3.

Berman and Jobes (1971) documented the majority of the increase within the 15 to 24 age group as occurring within the 15 to 19 age subgroup of that population. In

1957, for example, the 15- to 24-year-old suicide rate was 4.0. This is a marked change from the 13.3 rate of 1989. This striking rate of increase has attracted significant attention since the mid-1950s. The overall suicide rate for 15- to 24-year-olds in the period between 1957 and the present has more than tripled, an increase of over 300%. The increase for the youngest portion of this age group is almost twice as large as for the older 20 to 24 age group (USDHHS, 1992).

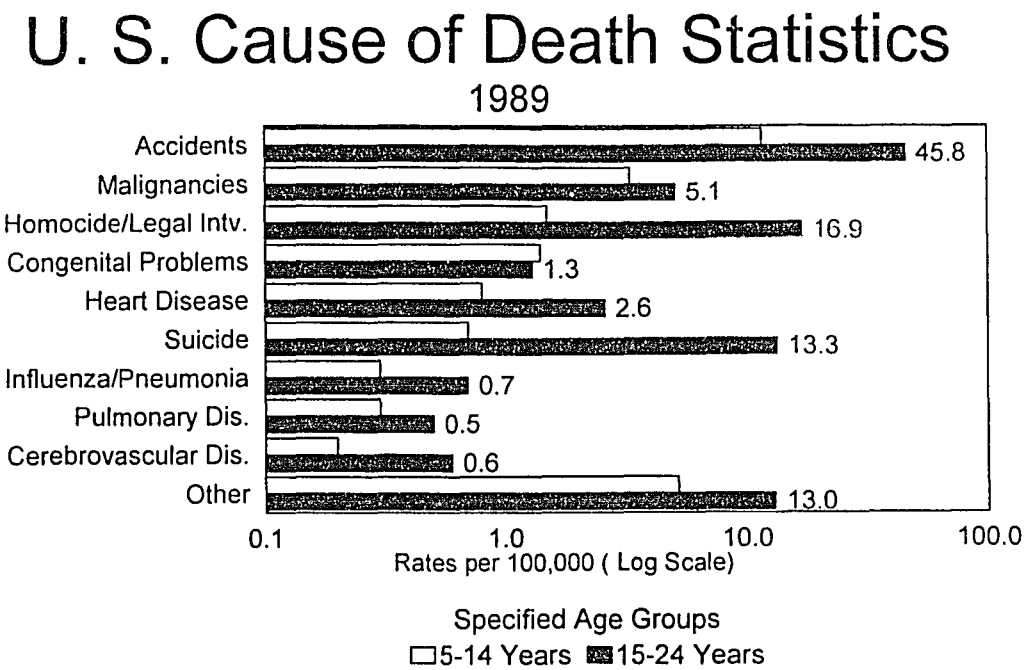


Figure 2. National cause of death statistics, 1989.

Vital Statistics data on youth suicide for 1987, as compared between gender and race, are shown in Table 1 (USDHHS, 1988). The suicide rate for young males has

grown much more rapidly than that for youth females. Interestingly, the white female has a substantially higher rate than the black female. In the United States, youth suicide rates have been consistently lowest in the south, north central, and northeastern states; and highest in the west (Shaffer, Garland, & Whittle, 1988). Unfortunately, federal data do not answer the questions of when, where, or how of youth suicide.

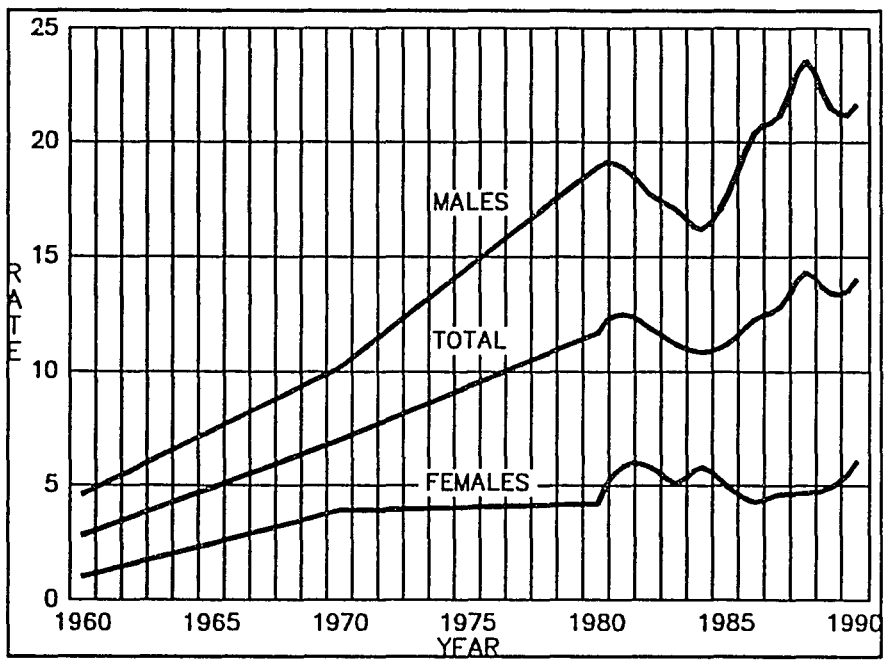
Oregon epidemiology. The state of Oregon collects suicide data under the Oregon Department of Human Resources. Information is sorted by a variety of factors such as age, location, and gender. During 1990, 40 youths less than 20 years old committed suicide in Oregon. This was a record number. The rate of increase is slowing from the 1970s to the 1980s to the 1990s even though the actual numbers are increasing following the same trend as international and national statistics. Figure 3 shows that males remain more consistent in committing suicide. Fifteen- to 19-year-old individuals are 5.3 times more likely to commit suicide than was their age group in 1959-1961 (Oregon Department of Human Resources, Health Division [ODHR], 1992). The suicide rate for Oregon youths has drastically increased over the past 16 years while the national rate for all ages combined has remained quite stable.

Table 1

Death Statistics of Youths and Young Adults in the U.S. by Gender and Race in Selected Years 1970-1986

Age	1970	1974	1978	1982	1986
Ages 10-14					
All races	0.6	0.9	0.8	1.1	1.5
Male	0.9	1.4	1.2	1.7	2.3
Female	0.3	0.4	0.4	0.4	0.7
White	0.7	1.0	0.9	1.1	1.6
Male	1.1	1.0	0.9	1.1	1.6
Female	0.3	0.4	0.4	0.5	0.7
All other	0.4	0.6	0.5	0.9	1.2
Male	0.3	0.7	0.6	1.6	1.8
Female	0.4	0.4	0.5	0.2	0.5
Black	N/A	N/A	N/A	N/A	N/A
Male	N/A	N/A	N/A	N/A	N/A
Female	N/A	N/A	N/A	N/A	N/A
Ages 15-19					
All races	5.9	7.9	8.0	8.7	10.2
Male	8.8	11.0	12.8	14.1	16.4
Female	2.9	3.2	3.1	3.2	3.8
White	6.2	7.6	8.0	8.7	11.3
Male	9.4	11.9	12.8	15.5	18.2
Female	2.9	3.3	3.4	3.4	4.1
All other	4.2	4.5	4.5	4.6	5.3
Male	5.4	6.2	7.5	7.2	8.0
Female	2.9	2.8	1.6	1.9	4.1
Black	N/A	N/A	N/A	3.9	4.6
Male	N/A	N/A	N/A	6.2	7.1
Female	N/A	N/A	N/A	1.3	2.1
Ages 20-24					
All races	12.2	15.1	16.9	15.1	15.8
Male	19.3	24.1	27.4	25.1	26.6
Female	5.7	6.2	6.4	5.1	4.9
White	12.3	15.5	17.5	16.0	17.0
Male	19.3	24.5	26.1	26.4	28.4
Female	5.7	6.2	6.7	5.4	5.3
All other	12.0	12.8	13.8	10.6	10.1
Male	19.4	21.3	23.3	17.5	17.5
Female	5.5	5.0	5.0	3.9	2.9
Black	N/A	N/A	N/A	9.3	9.0
Male	N/A	N/A	N/A	16.0	16.0
Female	N/A	N/A	N/A	2.9	2.4

Note: During the years, 1970, 1974, and 1978, the statistics for Blacks were included in the "all other" category.
Source: USDHHS (1988).



Figures prior to 1980 have been extrapolated between 10 year census points.

Figure 3. Suicide rates for 15- to 19-year-olds, 1959-1961, 1969-1971, 1979-1981, and three-year moving averages from 1981-1989, Oregon residents. (Source: ODHR [1992, p. 7-1].)

Figure 4 shows how dramatically that 15- to 19-year-olds have progressively increased their likelihood to commit suicide in comparison to the 10- to 14-year-olds.

Figure 5 represents the consistently higher completion rate for male youths versus female youth completers.

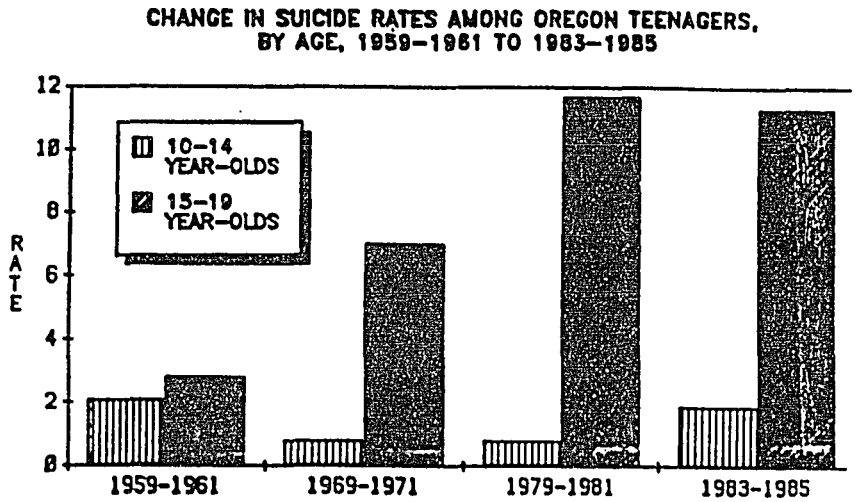


Figure 4. Change in suicide rates among Oregon teenagers, by age, 1959-1961 to 1983-1985. (Source: ODHR [1988, p. 5].)

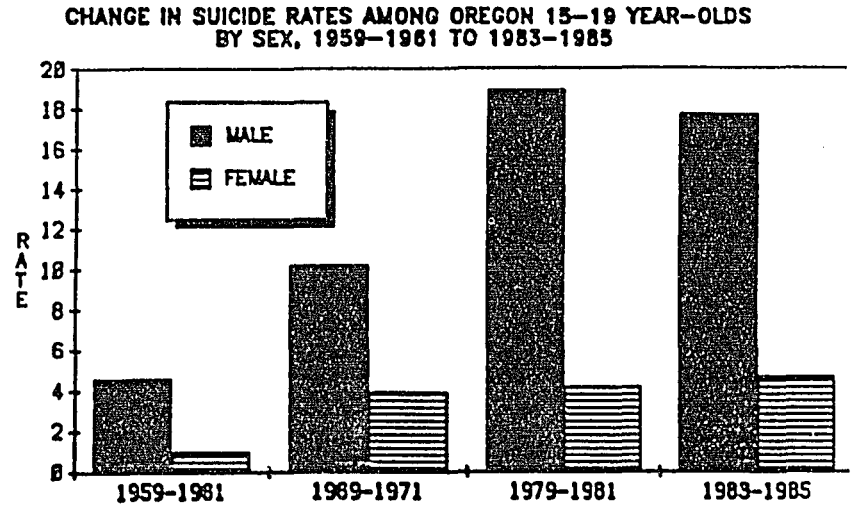


Figure 5. Change in suicide rates among Oregon 15- to 19-year-olds by gender, 1959-1961 to 1983-1985. (Source: ODHR [1988, p. 6].)

Epidemiology of suicide attempters. Attempted suicide is the intention of killing oneself but without fatal results, usually because of unsuitable or inadequate

means (Kearns, 1965). The literature speculates that for every completed suicide, there are from 8 to 300 suicide attempts. For high school students, there may be as many as 350 attempts for every completed suicide (Garfinkel, Crosby, Herbert, Matus, Pfeifer, & Sheras, 1988). Most suicide data is based on completed suicides. Oregon is unique in that it is the only state that mandates the collection of data on serious suicide attempts by youths.

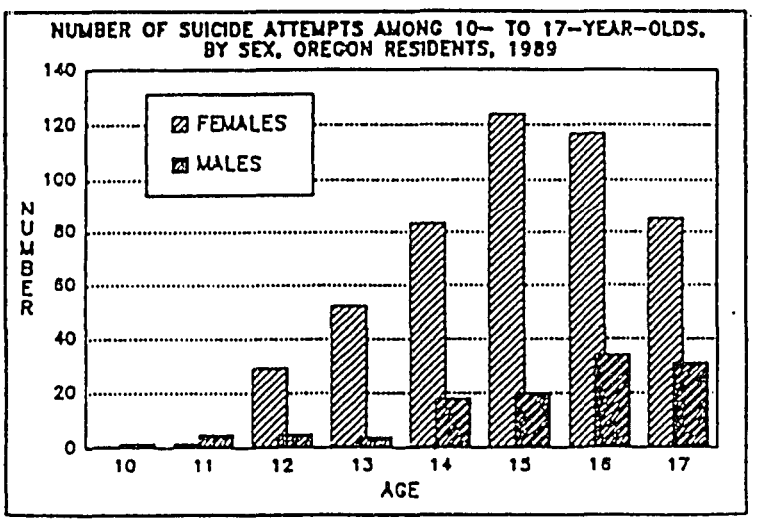
As noted on Oregon State Health Department (OSHD) Form 45-119,

> Any hospital which treats as a patient a person under 18 years of age because the person has attempted to commit suicide shall report statistical information to the Health Division of the Department of Human Resources about the person. (see Appendix D)

These data have been collected since January 1988. Suicide and attempted studies do not report identical data and do not assess the same factors. Adjustments and limitations are necessary to compare the two groups. The two groups do reflect some commonalities, but the populations are different and react in different manners.

Suicide attempts are much more common than completed suicides. Ross (1985) found that 13% of 120 Northern California high school students admitted to at least one suicide attempt. Through the Oregon system, 624 youths were identified in 1989 as having attempted suicide (ODHR, 1992). In 1990, 526 attempts (compared to 20 completions) were identified. For reasons discussed later in this

paper, these numbers are considerably under the actual number of cases suspected to be happening. The youngest child to attempt suicide in 1990 in Oregon was 6 years old, with an additional 25 attempters under 13 years of age. The decrease in numbers between 1989 and 1990 was in the female section (see Figure 6). The attempt rate for the state was 169.2 per 100,000 youth under 18 as defined and recorded by the Center for Health Statistics (see Figure 7).



1. *Oregon Vital Statistics Report 1988.* Oregon Center for Health Statistics. Health Division. Oregon Department of Human Resources. December 1989.

Figure 6. Number of suicide attempts among 10- to 17-year-olds, by gender, Oregon residents, 1989. (Source: ODHR [1992, p. 7-2].)

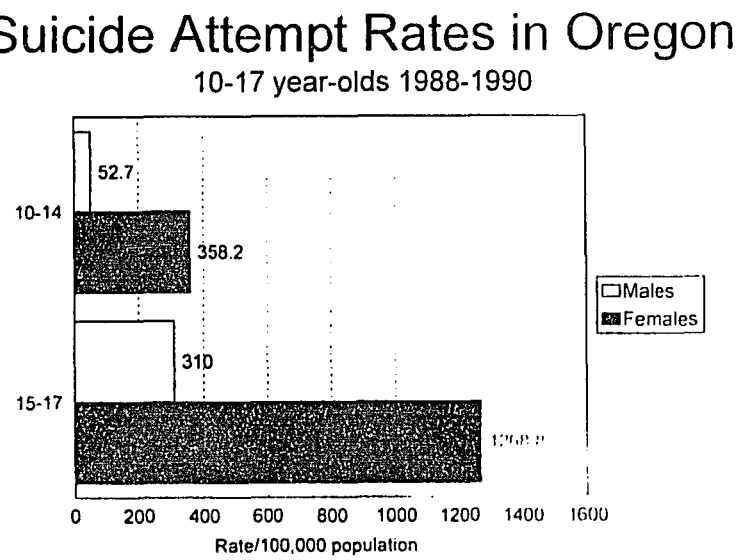


Figure 7. Suicide attempt rates for 10- to 17-year-olds, Oregon residents, 1988 and 1989. (Source: ODHR [1992, p. 7-3].)

Need for the Study

Youth suicide is a major public health problem and the third leading cause of death in youths in the United States. The Task Force on Youth Suicide (ADAMHA, 1989c) has recommended the practice of identifying high risk groups of youth in order to introduce more intensive preventive methods. The screening, or Gatekeeper, model is widely accepted for identifying high risk groups in school settings.

This study contributes to the identification of risk factors and the early identification of potential risk of youth suicide in Oregon. It also describes high-risk groups of Oregon youth attempters. Lastly, the study adds

to the body of knowledge used by practitioners to identify groups of students at risk of suicide for the purpose of intervention and prevention.

The Secretary's Task Force for Youth Suicide (ADAMHA, 1989a) summarized the state of research concerning youth suicide by stating, "the state of knowledge about youth suicide--what causes it, who is at greatest risk, and how to prevent it--is much less developed than that of many other health problems" (p. 1-1). One of the Task Force's final recommendation was for the increase in credible studies of youth suicide and in particular, risk factors to be used in screening and early identification of youth. National studies are quite frequent, but they are only as credible as the data they select. The state of Oregon collects detailed data on youth suicide attempts. It is the only state which is mandated to collect attempt data. In addition, the reliability of a study is partially dependent upon how well the sample reflects the population. The reliability of a local Oregon study to reflect local Oregon youths is greatly enhanced. Oregon youth suicide data have been used by others, but there are few studies as proposed on a local Oregon level.

Broad Research Questions

The primary purpose of this study is to seek to identify social, behavioral, and psychological factors

that have occurred in those youth who have attempted suicide. This information has a practical application in that it is helpful to identify students at risk of suicide. This is a necessary step in most forms of prevention due to the small actual number of suicides.

Secondary objectives this study seeks to explore are:

1. What are the demographic similarities and differences between Oregon youth suicide completers and attempters as reflected in state-mandated data collected in 1989 and 1990?

2. What social, psychological, and behavioral factors describe youth suicide attempters in Oregon in 1989 and 1990?

3. Can patterns of social, psychological, and behavioral factors be identified for subgroups of Oregon youth suicide attempters in 1989 and 1990?

4. Do opinions of professional suicide experts confirm the patters of factors identified from attempters and completers in the 1989-1990 Oregon data?

Limitations

Studies of youth suicide in general face some limitations not met by other research topics. Some of these difficulties include:

1. High mobility of the youth population.

2. The lack of accurate reporting of suicide deaths.

3. The lack of comparable methodologies in most studies.

4. The inability to measure delayed effects.

5. The inability to verify data anonymously received at crisis centers.

6. The difficulty of measuring suicide reduction as an outcome.

7. Effective intervention cannot morally be withheld.

8. The rarity of suicide, making it necessary to study huge numbers of youth.

These limitations effect this and other studies concerned with youth suicide. Professionals seem to agree that inconsistent data and unverifiable outcomes have plagued research in the field.

Operational Definitions

ATTEMPTED SUICIDE: For purposes of this study, the non-lethal act of suicide that results in an injury serious enough to be taken to the emergency room. The victim may or may not be admitted for treatment. These cases fall under the jurisdiction of Oregon Revised Statutes (ORS) 189 (1993), and data are collected in the specified manner.

EPIDEMIOLOGY: The study of a disease by the examination of all elements contributing or not

contributing to the occurrence of a disease, in this case, a suicide episode.

RISK FACTOR: The behavioral, sociocultural, biological, and psychological characteristics that contribute to an increased likelihood of suicide among young people. These factors are used to identify subgroups which are at particularly high risk of committing suicide.

SUICIDE: When cause of death is recorded on the death certificate as "suicide."

YOUTH: Defining youth is not consistent between government sources, suicidologists and authors in the field. The Federal government collects suicide data on youth under age 19. The state of Oregon collects youth suicide data on all youth less than 18. That chronological age group from 15 to 24 is sometimes identified as youth, and is often divided into upper youths from 20 to 24, and lower youths from 15 to 19. In this study, youth is defined as individuals from age 18 and under. One section of this study looks at developmental differences, and as a result material for youth 11 and under has been dropped, and the remainder of attempters has been divided into a young group, 12 through 14; and an older group, 15 through 18. Reference to youths throughout this study will mean individuals under age 18, and unless specified otherwise, this will include

one 7-year-old suicide victim in a sample of 40, and 20 attempters from ages 6 through 11 in a sample of 1,150.

CHAPTER II

REVIEW OF THE LITERATURE

The epidemic rate of increase in youth suicide since 1960, both around the world and in Oregon, has been demonstrated in Chapter I. The tragic loss of life, the loss to society of human productivity, and the paralyzing grief and self-reproach of survivors spur prevention efforts. The Secretary's Task Force on Adolescent Suicide was formed in 1989 to synthesize existing knowledge and to make recommendations to result in the reduction of youth suicide in this country (ADAMHA, 1989a). Areas of the country vary in youth suicide rates, but generally, the United States appears to level in the late 1980s, however, 1989 shows record numbers of youth suicides, and the return of high rates of increase.

Theoretical Approaches to Youth Suicide Risk Assessment

Approaches to the estimation of suicide risk may be considered in two general categories: clinical and empirical. Clinical assessment in true form has its foundation in the classic interview between professional and youth. This approach encompasses character structure, life experience, and adaptive needs that allow the

professional to recognize the circumstances in which a suicidal act is likely to occur in a particular individual. This contrasts sharply with the empirical approach which uses a number of items previously observed in persons who committed or attempted suicide with the implied assumption that those observations would identify the youth being assessed as similarly at risk (Motto, 1991).

The clinical approach has the following characteristics:

- requires a calm setting, conducive to thought and reflection;
- the youth needs to be cognitively clear and articulate;
- the youth needs to be cooperative;
- the professional needs to be well trained and experienced;
- a relatively long period of time: about 20 minutes.

In contrast, the empirical approach offers the following:

- quick, about 5 minutes;
- uses data from a variety of sources;
- compatible with a hectic, noisy environment;
- does not require a trained professional.

The amount of time in which a factor or an experience impacts a suicidal decision is important. Motto (1991)

synthesized the research to date concerning this time factor. The majority of studies Motto reviewed supported empirically identified factors that usually focus on just a few days or a week at most. Some factors such as hopelessness appear to have an extremely long time period, on average 3.5 years (Beck, Brown, Berchick, Stewart, & Steer, 1990).

One limitation of empirical models is that they fail to assess the strengths of the client. As noted earlier, suicide occurs when the youths psychic pain exceeds their ability to withstand. This level of tolerance is in constant flux with events and feelings. Some youths have strengths or tolerance levels which allow them to endure, cope or problem solve for a longer period, or even indefinitely. The interview situation allows for an assessment of strengths by a professional, where the empirical method does not.

In the field, these two approaches are not isolated. The clinician often uses many empirically derived questions in the interview while the empirically operating professional may well observe body language or other clinically common observations. The ideal approach seems to be one in which the two approaches are integrated. This is most common in the school setting in which the empirical approach is used by staff untrained in mental health, where empirically identified high risk students

are then referred to a clinically grounded professional. The structure of schools, shrinking funding, and relatively untrained personnel support empirical identification of risk factors in the public school.

Risk Factors, Causation and Correlation

One of the major problems with epidemiological studies is that there is not just one typical suicidal person. Each individual suicide is a unique act influenced by a diverse array of personal and social factors, most of which are not obvious. About one-third of the youth that commit suicide do not fit the known pattern. Suicidal youths may come from warm, loving and supportive families, or they may come from dysfunctional families. Some victims are of above average intelligence; some are not. Many are unsuccessful in school, but many are very successful. There is no single factor or single profile of factors. There is such a wide array of social, behavioral, and psychological factors that faultless suicide prediction through epidemiological, or other means, is not possible. Although each suicide must be individually considered, patterns begin to emerge which allow some generalizations to be drawn about young victims (ADAMHA, 1989a, p. 1-7). These factors, generalizations or commonalities are accepted in the literature for use as screening devices. Some developmental theory advocates

say psycho-social factors dealing with the individual's psychological development in relationship to the social environment are the fundamental cause of youth suicide. This field of study examines such factors as peer relations, sexual development, and the characteristics of the home.

The developmental theory recognizes the study of youth suicide as a separate entity rather than as an inclusion in the adult study of suicide. In support of this, theorists point to the rapid increase in youth suicide in the 1970s that does not correlate with a rapid increase in adult suicide. The developmental theory of adolescents correlates the high rate of suicide in youths with particular stages of development of the youth which are described by normative data. The adolescent stage can be developmentally defined as one of great changes, a pulling away from parents, and the defining of a new and unique being (Capuzzi & Gross, 1989). This stage is also marked by an increasing importance of the peer group. The nonconformity of youths is apparent in fashion choices, hair styles, and colors. The adolescent stage is sometimes defined by gang membership, sexual questioning, drug use, and academic pressures. Adolescence complicates cognitive development as well. The highest levels of cognitive development discussed by Piaget (1927/1969) are often reached during youth. The strong relationship with

peers, the new independence from authority, and even change itself may contribute to feelings of helplessness and hopelessness which are often linked in the literature with both attempted and completed suicide (Orbach, 1986). Stress brought on by change is cited by Rubenstein et al. (1989), as well as emerging sexuality as causes for increased youth vulnerability to suicide.

Another school of thought evolves around a physical, pathological basis for suicide. Goodwin (1989) suggested that developmentalists and the pathological proponents may be looking at different populations. Those feeling strongly about a psycho-social origin tend to study suicide attempters who experience suicide ideation and often visit crisis centers or call hot lines. Those feeling suicide is primarily psychiatric-biochemical in nature have studied actual suicides, or very serious hospitalized attempters. Most of the data for this group are gathered in hospitals or other institutions. The two schools of thought reinforce the confusion in the study of the suicide issue.

Strategies to Identify High Vulnerability

The literature reveals four basic strategies which have been used to determine suicidal risk. Matching the social demographics of suicidal persons has been used with adult suicide, and more recently, specifically with youth

psychological autopsies (Brent, 1986; Gould & Schaffer, 1986). These risk indices have shown some differences in factors between adult findings and youths. There seems to be considerably less feelings of hopelessness and depression, for example, among young victims than adult completers (Rotheram-Borus & Trautman, 1986).

Another strategy used commonly to identify risk factors is the use of psychometric assessments. The Minnesota Multiphasic Personality Inventory (MMPI) and semantic differential scales appear as indirect means of assessing risk for suicide (Beck, Schuyler, & Herman, 1974; Blau, Farberow, & Grayson, 1967). There have been no studies, however, of validation of these instruments and their utility in identifying risk.

The third strategy, one of identifying psychological profiles of high risk youth, has been used frequently with children (Pfeffer, Conte, Plutchik, & Jerrett, 1979). The most frequently identified patterns among suicidal children are depression and anger. Findings dispute those mentioned earlier which reported less feelings of depression in suicidal youths. Teri (1982) reported high feelings of depression. Several researchers suggest anger may even be more closely related to youth suicide than depression (Kovacs & Beck, 1977; Shaffer, 1974). Researchers have used this method to identify other possible factors to identify suicidal risk. These

include: family disorganization (Morrison & Collier, 1969); marital discord (Lukranowicz, 1968); parental suicidal behavior (Shaffer, 1974); and low frustration tolerance, suggestibility, and intense emotional reaction (Shaw & Schelkun, 1965).

Another common means of identifying risk is by examining those already high risk groups. For example, about 46% of the youth who have completed suicide in one study had previously threatened or attempted suicide (Shaffer, 1974). The rate in studies varies from 31% to 50% in attempters which go on to complete (Chowdburry, Hicks, & Kreitman, 1973; Greer & Bagley, 1971; Kreitman, 1977; McIntire & Angle, 1972). Suicide completers that were attempters suggest an available high risk group to study. Other youth groups such as runaways, pregnant teens, and HIV-positive youth, have also been identified as groups which may be high risk for suicide (Shaffer & Gould, 1986).

The identification of risk factors would permit the identification of people who may attempt or commit suicide. If these people could be identified before the event, they could be referred to professionals for treatment. The literature suggests that youths who commit or attempt suicide may demonstrate certain behavioral signs and symptoms that they are considering suicide (Holinger & Offer, 1981; Ross, 1980, 1985). These

behavior clues are often very short-term, and used to identify an eminent attempt. A general consensus of these clues might include (Lawrence & Ureda, 1990):

1. Giving away prized possessions.
2. Abusing drugs or alcohol.
3. Remaining depressed over a period of time.
4. Acting out behaviors such as engaging in violent argument.
5. Suddenly changing eating or sleeping habits.
6. Indicating no hope for the future.
7. Taking unusual risks.
8. Making indirect comments about not being around in the future or about people being better off without them.
9. Talking about death much of the time.
10. Directly threatening suicide.
11. Having a plan for suicide.
12. Obtaining the means for carrying out a suicide plan.

Lawrence and Ureda (1990) studied the above factors when used by peers to identify others who may be contemplating suicide. They found that peer knowledge of the above factors only accounted for a small measure of actual early identification. Self-efficacy on the part of the peer was of greatest contributory value.

One approach to identifying suicidal risk is the "five domains" developed by Blumenthal and Kupfer (1987). They have developed five domains of suicidal risk including biology, psychosocial life events, family history, genetics, and psychiatric disorder. They were able to identify characteristics in each domain that were more prevalent in suicidal youth. They theorize that the chance a youth will engage in suicidal behavior is a function of the degree of overlap among the five risk factors. They recommend that the procedure to identify high-risk groups include the identification of major social problems and the detection of psychiatric disorders. Critics contend that, even though there are some empirical studies associating the five domains to suicidal behavior, there is no study to confirm any relative contribution of each domain. Blumenthal and Kupfer studied the difficulties inherent in suicide research. The motivating factors behind suicide are multi-faceted and interactionary. One of the problems with factorial studies in general, is that not all youth with the same factors react in the same way.

A similar approach is one that uses theories of suicide to build typologies, and then uses these typologies for identification and secondary prevention. This innovation of the factor approach appeared in Gould (1965), Beebe (1975), and Everstine and Everstine (1983),

culminating in the work of Davis (1985). Building on each other and coming together in Davis' work are eight types of students at-risk of suicide:

- Children experiencing personality disintegration: active psychotic delusional youth. Most often institutionalized.
- Students with inwardly directed rage: Great anger which cannot be expressed in socially acceptable ways.
- Students experiencing abandonment: real or imagined rejection, suicide may compensate for feelings of lack of control or helplessness.
- Manipulative students: Suicide may be the ultimate manipulation of adults.
- Students losing an important love object: Sometimes an effort to re-unite, sometimes a result of being unable to move through the grieving process.
- Students feeling guilt: Suicide may be considered the only way to make-up for transgressions.
- Students who feel they are in an insolvable situation.
- Students who have previous suicide attempts.

The eight typologies above are similar to risk factors in that they were formulated in a similar manner. Both originated from looking at commonalities in background,

behavior and environment in populations that have exhibited a higher than average propensity for suicide.

As discussed, the use of factors derived through identification of commonalities in a population can be used to identify the population. The literature contains numerous studies using these commonalities to identify risk. Because youth suicide is so infrequent in the general youth population, it becomes exceedingly important to identify those persons considering taking their life. Once identified, clinical and therapeutic means can be used to reduce the risk. Finding those eminently suicidal youth is crucial.

Risk Factors in the Youth Attempter Population

This particular study was done with a population of suicide attempters less than 18 years of age. This group has attempted suicide in a serious enough manner to result in injuries which required hospitalization. This population is far down the continuum stretching from simple ideation to completed suicide. The literature has much to say about the suicide attempter. Several studies have described this group. Jacobs (cited in Haim, 1970) and Teicher (1971) followed a group of 50 suicide attempters treated at Los Angeles General Hospital compared to a control group of 31 youths at a suburban high school. They reported 44% of the attempters had a

previous attempt, while there were no attempts in the control group. A similar study by Otto (1972) found that 16% of 1,727 attempters had previously attempted suicide. This same trend was found by McIntire and Angle (1972); McKenny, Tishler, and Kelly (1983); and Hawton, Osborn, Grady, and Cole (1982). Investigators at Oxford General Hospital found that 40% of the attempters had previously attempted suicide where none of the matched control group had done so. Studies by Shaffi and Shaffi (1982) and Diekstra (1982) noted that the risk of suicide is significantly increased when a previous suicide attempt has been made. Other studies reversed the research and followed suicides backward by doing psychological autopsies. Rates of repeat suicide attempters ranged from 21-43% (Barter, Swaback, & Todd, 1968; Cohen-Sandler, Berman, & King, 1982; Motto, 1984; Stanley & Barter, 1970).

> In general, from the studies of completed suicides, attempts, threats, and ideation suicidal behavior--with and without control groups and retrospectively in case histories or prospectively through followup--prior suicidal behavior is a significant and valuable clue for further self-destructive behavior. The risk factor seems valid both for children and adolescents and for boys and girls and also seems to increase in significance with increasing age among adolescents. (Farberow, 1985, p. 2-35)

Clinical and empirical findings lay the ground work for the population of this study. Attempters are considered in the literature as being a high risk group

for suicide. This is not to assume that the population of attempters have the same risk factors to the same degree that suicide completers have displayed. In an analysis of the literature, Diekstra (1988) reviewed 17 studies from a number of countries comparing those who had engaged in attempt behavior and those who had not. Diekstra did not limit his study to youth. He was able to identify the following profile:

- Attempters are more often unmarried or divorced and suffer more often from depressive disturbances and interpersonal conflicts.
- As far as depression symptomatology is concerned, agitation, hostility and feelings of hopelessness and helplessness are most prevalent.
- Cognitive characteristics that are clearly associated with depressive disturbance, like a negative view of oneself, negative view of relationships with others and of the future are found much more often among the suicide attempters.
- Their common interpersonal conflicts are not limited to problems with partners, but extend to the majority of persons in their social networks.
- They have much poorer employment records as well as more alcohol and drug abuse.
- In addition to their own history of suicidal behavior, there is a much greater incidence of

family suicides or deliberate acts of self-destruction.

A review of other characteristics identified in the literature as differences between attempters and completers of all age groups are: Suicides are more likely to be older men who are more often unmarried, divorced or widowed, live alone, are unemployed or retired. The lethality is usually higher in earlier attempts. Suicide notes are often left. The social differences between the attempters and completers are usually only a matter of degree. Evidence is building that social factors that affect the frequency and rate of suicide also affect the frequency and rates of attempted suicide (Diekstra & Hawton, 1987). Kalafat (1990) noted that suicide attempts seem to be increasing at an even greater rate than suicides. Ten to 15% of students in high school report having made a suicide attempt (Boggs, 1986; Bowers & Gilbert, 1987; Shaffer, Garland, & Whittle, 1988). For every completed youth suicide, there may be 50 to 100 (some literature estimates as many as 300) attempted suicides (Smith & Crawford, 1986). Females attempt suicide about nine times more often than males, but males complete suicide about five times more often than females (Kalafat, 1990). This is usually attributed to the increased lethality of the weapons used by males. The availability of firearms in this country may also be a

contributing factor. Shaffer, Garland, and Bacon (1987) put some of these statistics into real terms:

- The ratio for males who have made an attempt serious enough to be admitted to a psychiatric inpatient facility is 1 in 13.
- The ratio for females who have made an attempt serious enough to be admitted to a psychiatric inpatient facility is 1 in 340.

One other phenomenon that does not seem to be covered in the literature that is unique to attempters is the serious injury that often occurs from an attempt. This can include brain damage or other disabling conditions. Attempted suicide often is not just a matter of life or death.

In summary, there is a clear and defined reason to study suicide attempt data. Suicide attempters are the highest risk group of suicide completers. Much but not all of the descriptive data about attempters apply to suicides. There is justified cause to study attempters by their numbers and loss of productivity in their own right. Identifying the highest risk group to suicide and targeting prevention techniques is a viable method to reduce the rate of suicide.

Risk Correlates

Assessment of suicidal risk for youths and children is the foundation for preventing suicide. Youth suicide is multi-determined. Evaluation of risk must involve the qualitative and quantitative contributions of risk factors at a given moment, but also prodromal and precipitative behaviors (Pfeffer cited in ADAMHA, 1989b). Risk factors for the identification of suicide vulnerability need not be causal factors of youth suicide, but merely correlates that appear in pre-suicidal youths more than they appear in "normal" control groups.

Biological Risk Factors

The two primary candidates for biological correlates with youth suicide are affective disorders and schizophrenia (Roy, 1982; Tsuang, 1977, 1983); and a deficit in the functioning of the neurotransmitter serotonin (Asberg, Thoren, & Traskman, 1976; Stanley & Stanley, 1989). Asberg, Thoren, and Traskman found 10 times as many youths with low serotonin as there were in control groups of nonsuicidal youth. However, serotonin studies are still inconclusive because many of the control group registered deficit serotonin levels as well, but were not suicidal at the time of the study or in follow-up studies (Davis & Sandoval, 1991). Deficit serotonin levels have also been correlated with alcohol abuse, and

alcohol abuse is often mentioned in relation to suicide in youths (Blumenthal, 1988; Garfinkel, Froese, & Hood, 1982). These biological factors have even more limitations in research than do other areas of suicide investigation. The medical means of testing these biochemical levels prohibits wide scale testing of large numbers. Much of the testing must be done as a post-mortem experience.

Roy (1982) pointed out that suicidal behavior and depression are common in first-degree relatives of children and youths who commit suicide. Shaffer found that 38% of suicidal youths have family histories of suicide. Garfinkel, Froese, and Hood (1982) supported the previous studies and found that significantly more of their attempters came from families with history of suicide. These psychiatric illnesses are most often personality disorders and affective illness, especially manic-depressive illness. Several studies have been conducted with twins in an effort to determine genetic contributors. It could be a vulnerable personality or illness that is transmitted. Twin studies have been conducted in the hope of determining whether biochemical differences are transmitted genetically or environmentally. A synthesis of the twin studies shows a genetic vulnerability toward suicidal behavior and severe mental illness. Results are still inconclusive in most

areas, but it is clear that suicides for what ever reason, seem more prevalent in some families.

Intraphysic, Cognitive and Environmental Risk Factors

Social isolation (Durkheim, 1897/1951) and depression (Freud, 1910/1967) have long been considered corollaries of youth suicide. Pioneering research by Cohen, Motto, and Seiden (1966); Beck, Schuyler, and Herman (1974); and Zung and Green (1974) has confirmed the correlation. Another powerful predictor of suicide is "hopelessness," confirmed by Beck (1986); Beck, Kovacs, and Weissman (1979); and Beck, Steer, Kovacs, and Garrison (1985). Hopelessness has been identified as a core component of depression, and serves as a link between depression and suicide. Also, it has been found that hopelessness is associated with other psychiatric disorders which also predispose the patient to suicide (Beck, Steer, Kovacs, & Garrison, 1985). These findings have been supported by other researchers such as Dyer and Kreitman (1984), Goldney (1979), and Pallis, Barraclough, Levey, Jenkins, and Sainsbury (1982).

The literature contains several studies which concentrate on youth and the feeling of hopelessness (Asarnow, Carlson, & Guthrie, 1987; Brent, Kalas, & Edelbrock, 1986; Friedman, Corn, Hurt, Fibel, Schulick, & Swirsky, 1984; Garfinkel, Froese, & Hood, 1982; Kazdin,

French, Chris, Esveldt-Dawson, & Sherick, 1983; Kazdin, Rodgers, & Colbus, 1986). Orbach (1986) theorized that the suicidal child, due to familial, developmental, or life constraints, is unable to find a way out of a predicament that leads to feelings of hopelessness. The most current theory indicates a variety of psychopathologies leading to suicide when mediated by hopelessness (Davis & Sandoval, 1991).

Stress

Life stress seems to contribute to suicidality in youths. Cohen-Sandler, Berman, and King (1982) reported stress increasing for suicidal youth as they mature, reaching statistically significant levels by late childhood. Rubenstein et al. (1989) found stress scores 33% higher than nonsuicidal youth in the year preceding the suicidal experience. Rubenstein et al. noted sexuality, pressure to achieve, a family suicide, or personal loss combined to increase vulnerability. Ninety-two percent of the youths who scored high in all four of these areas were eventually suicidal.

Family Systems

The family system has epidemiologically shown a correlation to youth suicide. Two contemporary theories are by Sabbath (1982) who talked about the "expendable child" and Rosenbaum and Richman (1970) who discussed

family hostility and death wishes which pressure the child toward suicide. Family characteristics correlate with an increased youth suicide rate (Blumenthal & Kupfer, 1987; Garfinkel, Froese, & Hood, 1982); increased economic stress correlates as well (Garfinkel, Froese, & Hood, 1982). A correlation between youth suicide and the youth's perception of the family as high in conflict and low in support or cohesion has been verified by Asarnow, Carlson, and Guthrie (1987); Cohen-Sandler, Berman, and King (1982); Garfinkel, Froese, and Hood, (1982); Kosky (1983); Withers and Kaplan (1987); and Wright (1985).

Problem-Solving Ability

One of the first youth suicide problem-solving studies was conducted by Levinger and Neuringer in 1971. Using suicidal groups and "normal" control groups, they tested problem solving skills using the Wechsler Adult Intelligence Scale (WAIS) and the Rokeach Map Test Problems. They concluded that suicidal youths have a diminished problem solving capacity. Linehan and Nielsen (1983) also found that suicidal people seem to have deficits in interpersonal problem solving. A similar branch of research has covered "coping" behaviors. Asarnow, Carlson, and Guthrie (1987) found that suicide "ideators," when compared to non-suicidal children, were significantly less likely to generate cognitive coping

strategies. It was interesting that suicidal youth in this study often named suicide itself as a coping skill.

Precipitating Factors

Precipitating factors are not necessarily linked to causation of suicide, but they are a motivating event or happening and can be used for short-term screening. Shaffer (1974) found that more than one third of completed suicides were precipitated by a disciplinary crisis. Spirito, Overholser, and Stark (1989) found that 10% of the studied suicide attempters reported precipitating factors of school problems. The same study reported 53% precipitating problems with parents, 27% with male/female disputes, and 10% reported an incident with friends. Shaffer reported similar findings.

Prodromal Clues

Often included with suicidal factors for screening purposes are those visible signs or cues often occurring just prior to a suicide attempt. A disadvantage of using these clues is that they occur very close to the suicide. Successful prevention is enhanced by earlier warnings. These cues have been investigated by a variety of researchers (Duncan, 1977; O'Roark, 1982). Even though a specific presuicidal syndrome does not exist, these behaviors occur more often with pre-suicidal youth than with the youth population in general. Holinger and Offer

(1981) synthesized a list of behaviors cited earlier in this chapter. In some literature these are called "clues" to suicidal behavior. Even though usable for screening high risk youth, they normally occur just prior to suicide. Prevention screening is most effective when the suicide behavior can be identified earlier.

The use of risk factors is prevalent in the suicide literature in both the clinical and the empirical approach. Researchers have identified a wide array of possible risk factors. These factors usually cover biological characteristics and mental illness, environmental factors, stress, problem solving or coping, and a variety of precipitative factors and prodromal clues. Of course the strongest factor of all is a previous history of suicidal attempts.

In this study, a select number of risk factors are used to describe Oregon youth suicide completers, and secondly Oregon youth suicide attempters. Note throughout the literature, seldom is a single factor a lone indicator. It is important to look at factors in conjunction with other factors.

Prevention

Prevention programs for youth suicide are mainly primary intervention. Primary prevention by definition is applied before the fact. The suicide prevention movement

began in the mid-1960s in response to large increases in the suicide rate in some age groups, particularly youths. Prior to this, very little attention or research was focused on youth suicide, or for that matter suicide in general. During the 1960s, suicide prevention centers came into being in a number of different locations. The earliest centers were began by mental health professionals. These centers consisted of a telephone and professionals who offered help anonymously.

In the late 1960s, organizations in other countries became interested in suicide prevention. The Samaritans from England and the Contact Teleministries began telephone and other crisis intervention services. The American Association of Suicidology (AAS) was formed in 1968 and united professionals from several fields. It also put the volunteer field worker in contact with the academic researcher to focus together on the suicide problem. In the late 1960s and early 1970s, several crisis programs were organized specifically for the youth. The newest programs dealing with youths are in general and psychiatric hospitals. The need for help after suicide is attempted has led to the formation of outpatient programs.

School-Based Prevention Programs

Primary prevention programs within schools have been estimated at over 1,000 in 1985 (ADAMHA, 1989c).

School-based prevention/intervention programs are becoming increasingly common. Schools offer the best opportunity for reaching large numbers of young people. Schools are the best place to make an early identification of troubled, or potentially suicidal youth. Many school suicide initiatives began in response to local legislation or mandates which occurred as a reaction to a single suicide or a cluster of youth suicides. Garfinkel (cited in ADAMHA, 1989c) proposed several steps that he believed to be critical to a school-based prevention program:

- Early identification and screening by teachers and other school personnel, which includes recognizing certain behavior patterns and stressful life events that suicidal youths experience.
- Comprehensive psychological testing and psychiatric assessment of students identified as needing further evaluation.
- Crisis intervention and management. Other individuals--for example, coaches, clergy, social workers--who may be able to provide help, should collaborate in therapy as part of a suicide prevention team, which should be present in every school. The team should act as an advocate for any youngster suspected of being at risk for suicide.
- Programs immediately following the suicide of a young person in the community. These efforts are

aimed at preventing imitation and deemphasizing feelings of guilt, responsibility and anger from overwhelming the survivors.

- Educational programs for students, teachers, and administrative school personnel to develop sensitivity and awareness of youth suicide. School programs that deal with raising awareness of the student body to suicide and its prevention include discussions led by trained professionals that encourage students to discuss how friends can help when a troubled youth is identified. Many school programs work on developing skills in coping with life events, communication, and recognizing depression in themselves and their peers.

Schools and communities are the best natural locations for youth suicide prevention programs. Adults in these areas spend the most time with young people, and are in the best position to recognize changes in behavior or even verbal or behavioral cues that the young person may display prior to an attempt. Capuzzi (1994) again identified the school and the community as the most appropriate setting for prevention and intervention activities. He also stressed training school staff in the common profiles of youth suicide, behavioral cues, and dismissing myths which are often misleading.

Unfortunately, these school-based suicide prevention programs have never been proven effective in reducing suicide rates (ADAMHA, 1989d). This is true for several reasons. First, showing suicide reduction as an outcome is almost always impossible. In addition, the difficulty of measuring variables in the field when they are so rare has plagued legitimate researchers. The implementation of these suicide prevention programs have caused controversy. Professionals point to open discussion of suicide; however, community members sometimes think it promotes intent by some. Lessons on improving coping skills and improving the school populations level of mental health are beneficial. Reducing school failure, raising self-esteem, reducing depression, and self-destructive behaviors are mentioned as secondary benefits.

CHAPTER III

METHODOLOGY

Introduction

This is a descriptive study of youth suicide attempters and completers in Oregon in 1989 and 1990. Data about attempters is taken from a state mandated informational form and compiled in a state data base. Information about completers has been extracted from death certificates issued by the state, and put into a separate data base. A focus group of suicidologists have examined the results of this study to determine the degree to which it reflects their experience in the field. Also they have made recommendations for the use of the results of this material in the area of identification and prevention of youth suicide. No manipulation of variables occurs in this study, only a description of the existing variables and their relationship to the topic and to each other.

The purpose of this study is to describe social, behavioral, and psychological factors which occur in that youth population in Oregon that have attempted or completed suicide during 1989 and 1990. A practical application of this description presents itself in the public schools as an aid in the early identification of

youths at risk of suicidal behavior. This chapter has been divided into the following sections: Research Questions, Suicide Attempters vs Completers, Procedures, Data Analysis, and Limitations.

Research Questions

Specifically, this chapter presents the methodology used to answer the following four research questions:

1. What are the demographic similarities and differences between Oregon youth suicide completers and attempters as reflected in state-mandated data collected in 1989 and 1990?

2. What social, psychological, and behavioral factors describe youth suicide attempters in Oregon in 1989 and 1990?

3. Can patterns of social, psychological, and behavioral factors be identified for subgroups of Oregon youth suicide attempters in 1989 and 1990?

4. Do opinions of professional suicide experts confirm the patterns of factors identified from attempters and completers in 1989-1990?

Suicide Attempters vs. Completers

Two separate sample groups have been formed for this research. First is the sample of all youth (less than 18) who committed suicide in the state of Oregon during the

years 1989 and 1990, and were so designated on the death certificate recorded by the state of Oregon. One hundred percent of these cases were obtained. In this case the sample equals the population. This is not to suggest that all suicides by Oregon youths have been noted, but only the sample group as identified by medical examiners on the recommendation of local physicians. Suicide is uniformly considered underreported (ADAMHA, 1989a). Personal bias, lack of consistent criteria, negative stigma, and pressure from family all contribute to underreporting. Illegal contributing activities such as the use of drugs and alcohol by minors often go unreported as well. With youths, accidents are the leading cause of death in Oregon. It is often difficult or impossible to detect whether these accidents may be suicides. During the combined 1989-1990 period, there were 40 cases of completed suicide. Forty cases identified as suicide on the death certificate make up the completer sample for this study.

The second sample group, the attempt group, consists of 1,150 youth from 6 to 18 years of age who attempted suicide in 1989 or 1990 and incurred an injury serious enough to seek medical attention at a hospital emergency room. Seventy-eight percent of this group is female, and 92% of the group falls between 13 and 17 years of age. Thirty-one percent of the sample attempted suicide

previously at least once, while one child had attempted five previous times. These general trends are in line with national suicide literature.

The completer database (DB 1) is extracted from death certificates, and the attempter (DB 2) comes from hospital emergency rooms. The completer database assesses far less factors (see Table 2) than the attempter database. For this reason, comparison between the two groups has been limited to the first research question and to only the factors available for both groups. Research questions 2 and 3 pertain to attempters only.

Phi Delta Kappa Task Force on Adolescent Suicide (Garfinkel et al., 1988) stated, "There are almost 350 attempts for every completed suicide" (p. 2). Assuming there are 40 completed suicides in Oregon over two years, we could expect to find 14,000 attempts over that same two-year period. The state of Oregon reports only 1,150 during the two years, which falls far short of the 14,000 cases professionals suspect are occurring. The literature is replete with examples of underreporting. All agree it is a limitation of youth suicide research, and one which will probably not be resolved in the near future.

Table 2

Youth Suicide Attempters
and Completers

Factors Surveyed by Data	Completer DB 1	Attempter DB 2
Birth: mo, day, year	X	X
Injury: mo, day, year	X	X
Gender	X	X
Race	X	X
Pregnancy	X	
Rape or sexual abuse		X
Physical abuse		X
Recent move/new sch		X
Youth lives with:		X
Method of attempt		X
Place of attempt or suicide	X	X
Alcohol level at the time of the attempt		X
Frequency of regular alcohol use		X
Past psychological illness		X
Prescription medication use		X
Drug use and type		X
Previous attempts		X
Method		X
Argument with friend, or break-up male/female		X
Family discord		X
School problems		X

Procedures

Data Sources

State suicide database. In 1992, the researcher first petitioned the Center for Health Statistics for the state of Oregon requesting release of youth suicide data bases. This original request was denied because "It was the intent of the Legislature to protect the confidentiality of each individual making up the database." The researcher then petitioned a second time,

eliminating the request for any materials that could lead to the identification of individual attempt cases. This petition was granted. Copies of all correspondence are included in Appendix A of this document.

Data about youth suicide attempts were collected through the use of a survey written by staff of The Center for Health Statistics in the Oregon Health Division. This survey, titled the Adolescent Suicide Attempt Report (ASAR) Form 45-119, was written in response to ORS 189 (1993). Form 45-119 states that:

> Any hospital which treats as a patient, a person under 18 years of age because the person has attempted to commit suicide shall report statistical information to the Health Division of the Department of Human Resources about the person. (see Appendix D)

Procedure at the Center for Health Statistics calls for hospitals, public and private, to submit completed ASARs monthly. Information on the ASAR is solicited by hospital staff from medical records, physician and emergency room staff, parents, and when possible, youth attempt victims.

In researching the ASAR survey, the professional statistician responsible for youth suicide data collection was interviewed. He was an original author of the ASAR in 1987. He stated the document had been revised twice since its inception. The first revision was in 1989 in an attempt to make the document easier for hospital staff to complete, but did not change the content of the document. In 1990 it was further revised and a section was deleted

which questioned the victim's method of attempt. The Center for Health Statistics and hospital personnel agreed that the data were often not valid and difficult to ascertain. Data registered in columns 71-75 were deleted from this study because they were only available for half of the sample group and deemed unreliable as well.

Because of the subjectivity of many items, and the differences in hospital staff members filling out the ASAR, there is undoubtedly a problem of interrater reliability. It is impossible to eliminate these, so they are mentioned as a limitation. The state statistician also mentioned problems with as many as 50% of the hospitals in submitting completed ASARs in a timely manner. In response to my query, he stated that it appeared to be a problem of too much paper work in the hospitals. Ten days after the end of the month, the state reported only 50% of the hospitals had submitted their monthly ASAR forms. The Center for Health Statistics called hospitals repeatedly until about 90% had responded. Regularly, 10% of the hospitals never respond even though mandated to do so by law. In order to check the accuracy of reporting in individual hospitals, the Health Division randomly checks admission records (HDI) against submitted forms. Checks and follow-up normally result in between 90% and 100% of the attempted suicides having been filed.

Death certificates. Data about completed suicides were gathered from existing death certificates filed with the Health Division of the state of Oregon. Unfortunately, the amount and the quality of information provided by these instruments falls far short of that compiled for suicide attempters (see Table 2). A copy of the State of Oregon Death Certificate is included in Appendix E. This information was also obtained for the years 1989 and 1990. Due to the small amount of information on these death certificates, most of the statistical procedures were completed on the suicide attempter sample. All data collected from death certificates has been compiled by the state in the database and applied to the first research question.

Focus group. A focus group was held on October 25, 1995, at the Days Inn, Portland, Oregon. The purpose of this focus group was twofold. First, to compare the findings of this study, with the field experience of suicidologists, and second, to make recommendations, based on the findings of this study, for identification and prevention programs for youth at risk of suicide. Qualitative data were gathered from a focus group consisting of private and public professionals who deal with youth suicide and attempted suicide. Eight professionals attended the focus group. The following professionals participated in the focus group activity:

- Two Providence Emergency Room staff members who regularly fill out the attempt forms used in the data base
- A university professor of Counselor Education, also a Providence Hospital volunteer
- A university professor and noted author of youth suicide books as well as school and community based treatment programs
- A private therapist working at Albertina Kerr Center and Providence Hospital
- A Portland teacher of alternative education and at risk youth
- An Oregon Department of Human Resources Coordinator responsible for organizing the Governor's Task Force on Adolescent Suicide
- A Senior School Psychologist for the Salem-Keizer School District

The focus group was assembled. Members introduced themselves and explained their relationship to the topic. The moderator distributed booklets that were divided into color coded sections by Research Questions. Each section began with the research question, listed the significant findings related to that question, and included tables of pertinent statistics. To assist members, the moderator displayed the materials on an overhead. The moderator reviewed the study, and discussed what would be expected

of the members as well as the focus group procedure which was included in each booklet. Members were asked to speak clearly one at a time. Each member signed an Informed Consent, and was told their name would not be used, and to avoid identifying any client.

The focus group, a qualitative research method, is uniquely suited to gather personal, anecdotal material about specific topics--in this case, youth suicide and attempted suicide.

The focus group was recorded, transcribed, and then analyzed. The focus group was structured and it was not necessary to computerize the analyses. The data reflect personal contacts with suicide victims, attempters, their families and their counselors or physicians. The interaction between focus group members produced data and insights that would have not been otherwise available.

A focus group was used for the following reasons:

1. It provided a forum for a large amount of interaction in a small amount of time.

2. It provided an environment for interaction among professionals from different settings and potentially different perspectives.

3. Moderator control identified a narrow topic, but allowed a broad discussion of related topics and conclusions (Morgan, 1988).

Data Analysis

State Data Preparation

The survey data were transformed into data files for analysis by computer. This involved the following steps:

1. Organizing and formatting the data.

2. Designing the coding by assigning column numbers to each response. In this case, almost 100 columns were necessary.

3. Coding the data by turning answers into numbers.

4. Entering the data of all 1,150 suicide attempts and 40 suicide completions.

5. Cleaning data of impossible responses that usually occurred in the "none" or "unknown" areas.

The first three steps were completed by the Department of Human Services. Some data were provided with the data base regarding coding, however, the researcher found it necessary to modify this because of missing confidential information.

A ZEOS 486 computer with a SPSS (1994) program was used for all statistical computation. Raw data received from the Oregon Department of Human Resources were received in the ASCII format on 5.25" diskettes. This was processed using SPSS, which has the capability of converting ASCII to a SPSS acceptable form. The attempter and completer data for years 1989 and 1990 was combined because little statistical difference was found between

the two groups. The larger sample (1,150 and 40) was desired for increased accuracy.

Descriptive information was analyzed by using the SPSS (1994) program to identify percentage and cumulative percentage points for each factor. This procedure was completed to give a global, but preliminary view of the data.

Three major methods of analysis were employed to answer the four Research Questions: identification of frequency figures, statistical analysis (crosstabulation, and chi-square), and focus group transcriptions. Descriptive information was analyzed by using the SPSS (1994) program to identify frequency, percentage and to employ crosstabulations and chi-square tests of statistical significance ($p = .04$) between groups and subgroups of the studied population. Focus group materials were analyzed by the researcher. Due to careful organization and structuring of the focus group, a formal program for analyses was not necessary. The researcher categorized the data by research question and included appropriate data in the conclusion and recommendation section.

Research Questions

The purpose of this research is to address the four research questions presented in Chapter I. Each research question (RQ) involves different processes and procedures.

These questions and the research methodology designed to address them follow.

Research question 1. What are the demographic similarities and differences between Oregon youth suicide completers and attempters as reflected in state-mandated data collected in 1989 and 1990?

RQ 1 considers demographic data from both the completer group and the attempter group in Oregon in 1989 and 1990. Data for the completers is limited to gender, race, place of injury, and age. Much more in depth material is available for the attempter group, but for the first research question, materials were limited to the four categories available for the completers.

Data was considered by actual numbers and the percentage of frequency. The completer material was considered separately by year and then combined. The attempt data were considered in a combined form of both years to the number of cases for statistical computation. Findings are displayed on tables for both groups.

Research question 2. What social, psychological, and behavioral factors describe suicide attempters in Oregon in 1989 and 1990?

RQ 2 is an expansion of the attempt data. Eighteen factors were analyzed to determine their frequency or influence on youth suicide attempt cases in Oregon in 1989 and 1990. The statistical analysis considered social,

psychological, and behavioral categories. A rational for this division appears in Chapter IV. The frequency and influence of specific factors, as expressed by the attempter, were used to describe or profile the attempt group.

Research question 3. Can patterns of social, psychological, and behavioral patterns be identified for subgroups of Oregon youth suicide attempters in 1989 and 1990?

The subgroups of gender (male, female), race (White, Black, Hispanic, Other), race (White, Nonwhite) and age (12 to 14, 15 to 18) were identified. Each subgroup was analyzed to determine statistically significant differences within its parts. The Chi-Square Test of Significance was used to determine patterns of significant differences ($p = .04$) between the identified subgroups of attempters. Findings were displayed for each factor in each subgroup.

Research question 4. Do opinions of professional suicide experts confirm the patterns of factors identified from attempters and completers in the 1989-1990 Oregon data.

The findings of this study were presented to the focus group. The group was asked to react to them in light of their own experiential knowledge. The group was

also asked to suggest recommendations and conclusions regarding this data.

The focus group dialogue was recorded and later transcribed. The transcribed material was analyzed and condensed by the researcher.

Limitations

Limitations of this study and those of other youth suicide studies are numerous due to both the age level and to the cause of death. These limitations include:

1. Inaccurate data collection methods:

    a. absence or inability of the victim to provide information;

    b. difficulty in distinguishing suicide from other cause of death;

    c. delayed data collection;

    d. reticence of physicians, family and friends to identify suicide as cause of death.

2. Sensitivity and the necessity for confidentiality limits some data and may color results.

3. A high level of mobility exists in the youth population, making tracking difficult.

4. Suicide reduction is not measurable thus it cannot be used as an outcome.

5. Suicide, even though on the increase, is still quite rare. For example, Oregon has a youth rate of

13/100,000 or 1.3/10,000 or, .13 per 1,000. Salem, Oregon has about 10,000 youths enrolled in public school. Salem may expect a little more than one completed suicide per/year, which may or may not be identified. This sparsity of cases is a limitation to research.

6. Suicide data are gathered differently and the content is different than that gathered for attempters. Statistical comparison to any depth between the two groups is not possible within the parameters of available data.

CHAPTER IV

REPORT AND ANALYSIS OF THE DATA

Chapter IV reports the results of this study of youth suicide attempters and completers. This study analyzes and displays demographic data of attempters and completers in Oregon in 1989 and 1990. More in depth analyses have been completed with the larger attempter population. Specifically, the study examines the attempter population on social, psychological and behavioral factors and patterns of subgroups within the attempt population. Finally the chapter presents results of a focus group of professional suicide experts. The focus group compares experiential data from professionals with the statistical data derived in this study.

Research Question 1

What are the demographic similarities and differences between Oregon youth suicide attempters and completers as reflected in state-mandated data collected in 1989 and 1990?

Youth Suicide Completers

Sixteen youths died in 1989, and 24 in 1990 of intentional self-inflicted injuries. The data about

suicide completers for this study were derived from state death certificates. Only a small amount of demographic data is available about this group. Table 3 presents this material for the 40 youth suicide completers. The completer population is small, just 40 youths in Oregon in the years 1989 and 1990. Youth suicide in the state of Oregon in 1989 and 1990 was about 13.3 cases per 100,000. The numbers are so small that even one or two youths seem to make a significant difference.

In addition, the significant under-reporting of suicide for social and financial considerations has proved a limitation to all suicide studies. Parents, physicians, and friends of the victim often choose not to identify a suicide. Some experts feel the percentage of non-reported suicides may be almost as high as those reported, but the exact number cannot be determined.

Eight more youths (20%) committed suicide in 1990 than in 1989. Most of this increase occurred in the female population, 3 in 1989, and 10 in 1990. Although the percentage of difference seems great, the actual numbers are minuscule when compared to the entire youth population of Oregon. The difference between the two years has not been explained, but has been assumed to be a normal variation, and has been negated by combining the two years for statistical purposes.

Table 3

Demographics of Youth Deaths by Suicide in Oregon During 1989 and 1990

	1989 (n=16)		*1990 (n=24)*		*Total (n=40)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*
Gender:						
Male	*13*	*81.3*	*14*	*58.3*	*27*	*67.5*
Female	*3*	*18.8*	*10*	*41.7*	*13*	*32.5*
Race:						
White	*15*	*93.8*	*23*	*95.8*	*38*	*95.0*
Black	*0*	*0*	*1*	*4.2*	*1*	*2.5*
Japanese	*1*	*6.3*	*0*	*0*	*1*	*2.5*
Injury Place:						
Home	*10*	*62.5*	*18*	*75.0*	*28*	*65.0*
Farm or Mine	*2*	*12.5*	*1*	*4.2*	*3*	*7.5*
Industry Building	*1*	*6.3*	*0*	*0*	*1*	*2.5*
Street	*0*	*0*	*2*	*8.3*	*2*	*5.0*
Other	*3*	*18.8*	*3*	*12.5*	*6*	*15.0*
Age:						
7	*0*	*0*	*1*	*4.2*	*1*	*2.5*
12	*1*	*6.3*	*0*	*0*	*1*	*2.5*
13	*1*	*6.3*	*2*	*8.3*	*3*	*3.0*
14	*2*	*12.5*	*5*	*20.8*	*7*	*17.5*
15	*2*	*12.5*	*3*	*12.5*	*5*	*12.5*
16	*3*	*18.8*	*6*	*25.0*	*9*	*22.5*
17	*7*	*43.8*	*7*	*29.2*	*14*	*35.0*

Of the 40 cases noted in Table 3, 27 (67.5%) were male. Industrialized nations show the male youth population exceeding the female in completed suicides (USDHHR, 1992). Oregon reflects similar findings as in other states with about two of every three youth suicides being committed by males.

The great majority of youth suicides (95%) were committed by White teens; of course the majority of the population is White as well. The two-year study identified only one Black youth, and one Japanese. With these small numbers, conclusions about minority completers cannot be drawn.

The suicide rate tends to increase from the age of 12 through 18. A rapid increase in frequency occurs between 14 and 17 where 87.5% of all completed suicides in 1989 and 1990 occurred.

Sixty-five percent of all suicides in Oregon took place in a home. No other single location attracts more than 15% of the completer population. Only 5% of the cases were committed on streets or highways; however, it is often difficult to separate automobile accidents from suicide attempts.

Profiling the youth suicide victim, we find a White male, probably between 14 and 17. The suicide was most likely committed in the youth's own home. For a variety of reasons, later discussed in the limitation section of

this document, there is a lack of data for research purposes.

Youth Suicide Attempters

Much more information is available about suicide attempters through hospital emergency rooms than what is available from death certificates for completers. Comparisons for this research question are linked to the descriptive information available for suicide completers. An examination of the more extensive information about suicide attempters and the circumstances of their attempt is discussed in research questions 2 and 3 (see Table 4).

Only those attempters who were registered in emergency rooms for injuries sustained in a suicide attempt were included in this data. It is reasonable to assume that the number of attempts and completions may actually be much higher.

Many more females attempted suicide than males in 1989 and 1990 in Oregon. Almost four females attempted suicide for every one male (78.4% females to 20.7% males).

Most attempters, 85.1%, were White. In Oregon, in 1990, 92.8% of the population was White. There is a slightly smaller percentage of White youth attempters than there are white youths in Oregon.

Table 4

Demographics of Youth Attempted Suicide in 1989 and 1990 in Oregon

1989 and 1990 Combined (n=1,150)		
	Freq	*%*
Gender:		
Male	*239*	*20.7*
Female	*902*	*78.4*
Race:		
White	*979*	*85.1*
Black	*35*	*3.0*
Japanese	*1*	*0*
Injury Place:		
Home	*757*	*65.8*
Street	*12*	*1.0*
Other	*772*	*33.20*
Age:		
6	*1*	*0.1*
7	*1*	*0.1*
8	*1*	*0.1*
9	*2*	*0.2*
10	*6*	*0.5*
11	*9*	*0.8*
12	*45*	*3.9*
13	*105*	*9.1*
14	*199*	*17.3*
15	258	22.4
16	269	23.4
17	183	15.9
18	63	5.5

Frequency of attempts increased in Oregon from age 6 to 18. Less than 6% of the attempts occurred before the age of 12. The majority of attempts occurred in ages 12 through 17 (88.1%).

Similarities and Differences of Completers and Attempters

The most obvious difference between the two groups is the frequency in which they occur. While only 40 youths completed suicide in 1989 and 1990, a much larger number of youths (1,150) attempted suicide during the same two-year period. Speculation among suicide experts about the ratio of attempters to completers varies between 1:10 and 1:350 (Garfinkel, Crosby, Herbert, Matus, Pfeifer, & Sheras, 1988). The ratio of 1 completer to 29 attempters extracted from this data is well within the broad parameters of the literature.

Another profound difference between the two groups occurs in gender distribution. Many more males complete suicide (67.5% of all completions were male), while many more females attempt suicide (78.4% of all attempts were made by females). These figures may represent our societal attitude toward extending medical attention to females more frequently than to males, increasing the hospital reported numbers. It may in fact reflect the use of more lethal methods of attempts by males (guns, automobiles, etc.).

Both groups show a sizeable majority of White participants. Completers (95.1% White) and Attempters (85.1% White) reflect the generally White population in the state of Oregon in 1989 and 1990 (92.8% White).

Similarly, a sizeable majority of each population, youth attempters (65%) and completers (65%), chose their own home, or the home of an acquaintance for the suicide activity. This is understandable in that the youth spends a significant amount of time at home. Youths are also knowledgeable of the materials available at home which may be used in a suicide attempt, as well as the time schedule of other family members, and when they might be home.

Both populations reflect somewhat similar trends as those found in national age findings. The national suicide rate per 100,000 population is just 0.7 for ages 5 to 14. But just as in the attempt data in Table 4, the rate jumps dramatically to 13.3 per 100,000 in ages 15 to 24. The data show that for the attempt population studied, (ages 18 and under), that 96% of the attempts occurred in the age group of 12 and above. As shown in Table 3, the majority of completed suicides occurred at ages of 13 through 17 (90.5%). Although the rapid increase occurs in both groups, it does appear to occur at least one year later in the suicide completer group.

In conclusion, both attempters and completers are predominantly White. The majority of attempters are

female; the majority of completers are male. The home, for both groups, is the most common place of suicide activity. Both groups build in frequency of incidence, reaching the greatest percentage of occurrence in later youth.

Research Question 2

What social, psychological and behavioral factors describe youth suicide attempters in Oregon in 1989 and 1990?

Those descriptive factors used to address research question number one were primarily demographic. The remaining factors are social, psychological, and behavioral in nature. These descriptive factors are listed in Table 5. Notice the lines have been removed between social, psychological and behavioral to illustrate that the factors are not rigidly social, behavioral, or psychological, but interact and result from each other. Some of these factors, such as "Family Discord," are very broad, and for that matter, could be the end result of other factors. Others, such as "Death in the Family" are concrete and more easily defined. The placement of these factors in categories can be argued or changed without detracting from the results or the validity of this study.

Table 5

Categories of Youth Suicide Factors

Social	Psychological	Behavioral
Place of Attempt	Psychological Illness	Previous Attempts
Family Discord	Recent Crisis	Type of Drug Used
School Problems	Death in the Family	Blood Alcohol Level
Peer Pressure		Drug Use/Time of Attempt
Physical Abuse		General Alcohol Use
Rape/Sexual Abuse		General Drug Use
New School		Pregnant
		Problems With Law

The factors were placed in the social area if people other than the youth seemed to be in control. Factors were considered psychological if the factor stemmed from an emotional or mental circumstance of the youth. Behavioral factors are those in which the youth has some control. The table has no columns, showing that any of the factors can be considered from a variety of perspectives. For example, "Peer Pressure" can be considered a social factor because it originates outside of the youth. However, due to the unique psychological make-up of the youth and their lack of ability to cope with circumstances the factor might be considered psychological in nature. Finally, "Peer Pressure" could be considered a behavioral factor because of the manner in which the youth chooses to react to the situation. At any given time, each factor could be seen as socially,

psychologically, or behaviorally descriptive of the attempter.

Social, psychological, and behavioral factors of youth suicide attempters in Oregon, including their frequency in the youth attempt population, are presented and discussed in this section. Table 6 presents expanded race data. This attempter material is more in depth than the race data presented in the comparison under research question one. The material is included because it is helpful in describing the attempt group, but it is not a social, psychological or behavioral factor. The 1990 U.S. Census Report shows population data comparable to the attempt group (USDHHS, 1992). The percentage of White (89.7%) and Hispanic (3.3%) attempters is lower than the Oregon population of these same groups. All other minority groups are equal or higher in number in the attempt group than in the general population.

Youth suicide attempters may attempt suicide in a variety of places, but a home environment is the most common with 71.4% of the combined home area, with the greatest number of those, 757 or 65% in their own home (see Table 7). No other location accounted for even 10% of the attempts.

Table 6

Frequency of Race in Youth Suicide Attempt

Race	*Frequency*	*Percentage of General Oregon Population in 1989-1990**	*Percentage of Youth Attempters*	
			Unadjusted n=1,150	*Adjusted n=1,092*
White	*979*	*92.8*	*85.1*	*89.7*
Black	*35*	*1.6*	*3.0*	*3.2*
Native American	*17*	*1.3*	*1.5*	*1.6*
Japanese	*1*	**	*0.1*	*0.1*
Hispanic	*36*	*4.0*	*3.1*	*3.3*
Filipino	*1*	*0.1*	*0.1*	*0.1*
Other	*23*	*0.2*	*2.0*	*2.1*
Unknown	*58*	**	*5.0*	--
TOTAL	*1,150*	*100*	*100*	*100*

n = 1,150.
** USDHHS (1992).*
*** These categories were not separately defined in USDHHS (1992).*

Table 7

Frequency of Youth Suicide by Place of Attempt (n = 1,150)

Place of Attempt	*Frequency*	*Percentage*
Own Home	*757*	*65.0*
Other Home	*74*	*6.4*
School	*47*	*4.1*
Jail	*4*	*0.3*
Institution	*29*	*2.5*
Public Place	*15*	*1.3*
Street/Highway	*12*	*1.0*
Foster Home	*24*	*2.1*
Other	*17*	*1.5*
Unknown	*171*	*14.9*
TOTAL	*1,150*	*100*

Almost 31% of Oregon youth suicide attempters admitted to having attempted previously (see Table 8); or 41% of those reporting. Forty-nine cases (4.3%) stated they had previously attempted at least twice. Nineteen percent stated they had attempted before, but did not know how many times; or 25% of those reporting. Almost 25% did not provide information on whether they had ever attempted before, reflecting a reticence to admit to previous attempts.

Table 8

Frequency of Previous Youth Suicide Attempts (n = 1,150)

Number of Attempts	*Frequency*	*Percentage*	
		Unadjusted n=1,150	*Adjusted n=864*
No Previous Attempt	*510*	*44.4*	*59.0*
1 Previous Attempt	*86*	*7.5*	*10.0*
2 Or More Previous Attempts	*49*	*4.3*	*5.7*
Previous Attempt: Number Unknown	*219*	*19.0*	*25.3*
Not Stated/Unknown	*286*	*24.8*	--
TOTAL	*1,150*	*100*	*100*

Almost one in four (22.4%), youth suicide attempters in Oregon in 1989 and 1990 had been previously diagnosed with psychological illness (see Table 9). This number may actually be low because almost half of the cases, 49%, did not respond to the question. Of those having a diagnosed illness, the majority, 13.3%, suffered from depression. Schizophrenia was reported in just four cases (.3%). Of the population, 101 (8.8%) were diagnosed with multiple or a combination of mental disorders.

Table 9

Frequency of Youth Suicide Attempt by Psychological Illness (n = 1,150)

Diagnosed Psychological Illness	*Frequency*	*Percentage*	
		Unadjusted n=1,150	*Adjusted n=584*
Chronic Depression	*110*	*9.6*	*18.8*
Bi-Polar Depression	*4*	*0.3*	*0.7*
Depression NOS	*39*	*3.4*	*6.7*
Schizophrenia	*4*	*0.3*	*0.7*
Other or Multiple	*101*	*8.8*	*17.3*
None	*326*	*28.3*	*55.8*
Unknown	*566*	*49.2*	--
TOTAL	*1,150*	*100*	*100*

Of the attempters, 50.6% responded that they did not use drugs and 44.2% did not answer the question (see Table 10). This reticence to answer may be due in part to the illegality of drug use. Of those responding, the largest percentage (2.6%) used marijuana. All other drugs were used by less than 1% of the respondents.

Table 10

Frequency of Youth Suicide Attempt by Type of Drug Used (n = 1,150)

Type of Drug Used	*Frequency*	*Percentage*	
		Unadjusted n=1,150	*Adjusted n=642*
No Drug Used	*582*	*50.6*	*90.7*
Marijuana	*30*	*2.6*	*4.7*
Cocaine/Crack	*6*	*0.5*	*0.9*
Amphetamine, Crank, Speed, Tranquilizer	*9*	*0.8*	*1.4*
LSD	*2*	*0.2*	*0.3*
Other or Multiple	*13*	*1.1*	*2.0*
Unknown	*508*	*44.2*	--
TOTAL	*1,150*	*100*	*100*

Of the sample group 49.1% show some amount of alcohol in their blood at the time of the attempt (see Table 11). Over half (59.1%) of the sample showed no alcohol. Youths were automatically tested when they were seen in the emergency room, so there is no category for "no response." Because of the objective nature of the test, this data is probably the most reliable in the study.

Table 11

Frequency of Blood Alcohol Level in Youth Suicide Attempts (n = 1,150)

Blood Alcohol Level	*Frequency*	*Percentage*
1.0 or less	*9*	*0.8*
1.1 to 1.8	*8*	*0.7*
1.8 to 2.0	*23*	*2.2*
2.0 or more	*22*	*1.9*
Alcohol Present % Unknown	*408*	*35.5*
No Alcohol Use	*680*	*59.1*
TOTAL	*1,150*	*100*

Drug Use and General Alcohol Use required verbal responses rather than an objective measure such as the data just presented on blood alcohol level (see Table 11). As a result, they display high rates of uncertainty with 43% "Other/Unknown" for drug use and 30% for general alcohol use (see Table 12). Both activities are illegal for minors. Drug use during the attempt was confirmed by only 2% of the sample. Even after combining "stated" and "suspected" usage, only 6% of the population confirms drug use. Eleven percent say they use alcohol on occasion versus 41.1% (see Table 11) that showed some blood alcohol level at the time of attempt. Again, this is an illegal

act for the sample population and may be under reported by as much as 30%.

Table 12

Frequency of Drug and Alcohol Use in Youth Suicide Attempters (n = 1,150)

Identified Factors of Youth Suicide:	*Stated*		*Suspected*		*No*		*Other/ Unknown*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
Drug Use During	*8*	*4*	*28*	*2*	*579*	*57*	*495*	*43*
General Alcohol Use	*103*	*9*	*22*	*2*	*678*	*59*	*347*	*30*

Table 13 is a compilation of 11 social, psychological, and behavioral factors studied in this research. Each of these factors was addressed by the respondent in a "yes" or "no" manner. Four cases identified by asterisks were assessed in 1989 but not in 1990 resulting in a smaller combined sample (n). The Department of Human Resources dropped particular items in 1990. This may have been because they believed the data was not of use to them or not easily obtained by the person filling out the form. The factors displaying "Other/Unknown" numbers from 229 to 300 were revised midyear.

Table 13

Frequency of Youth Suicide Factors (n = 1,150)

Identified Factors of Youth Suicide:	*Yes*		*No*		*Other/ Unknown*		*Missing Data*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
Family Discord	*260*	*23*	*589*	*51*	*300*	*26*	*1*	*0*
School Problems	*125*	*11*	*724*	*63*	*300*	*26*	*1*	*0*
Peer Pressure	*15*	*1*	*379*	*33*	*230*	*20*	*526**	*46*
Physical Abuse	*26*	*2*	*824*	*72*	*299*	*26*	*1*	*0*
Pregnant	*87*	*8*	*832*	*72*	*230*	*20*	*1*	*0*
Problems With the Law	*14*	*1*	*380*	*33*	*230*	*20*	*526**	*46*
Rape or Sexual Abuse	*34*	*3*	*816*	*71*	*300*	*26*	*0*	*0*
Recent Crisis	*144*	*13*	*705*	*61*	*300*	*26*	*1*	*0*
Death in the Family	*13*	*1*	*377*	*33*	*229*	*20*	*531**	*46*
General Drug Use	*36*	*3*	*354*	*31*	*229*	*20*	*531**	*46*
New School	*28*	*2*	*821*	*71*	*300*	*26*	*1*	*0*

** This information was available for 1989, but not for 1990.*

The 11 factors in Table 13 describe the youth attempters or the circumstances of the attempt. Families or doctors most often supply the data from their knowledge or conversation with the youth attempter. The most often identified factor in attempting suicide by youths is family discord, 23%, followed by a recent crisis in their life (13%), school problems (11%), and pregnancy (8%). All other factors occurred at lower frequencies with less than 5% of the attempters. Many of these factors overlap.

This may explain the high percentage of "family discord" responses. All of the 11 factors could result in family discord.

In summary the social, psychological, and behavioral factors help form a profile of the youth suicide attempter in Oregon during 1989 and 1990. The attempter is most likely a White female. She probably made the attempt in her own home, after having made previous attempts. She probably did not have a diagnosed psychological illness, and would claim not to be using drugs or alcohol. She may have experienced a variety of the factors in Table 13. Family discord (23%), a recent crisis (13%), school problems (11%), or pregnancy (8%) may have contributed to her decision to attempt suicide, however these motivational factors are not conclusive and at this point only suggestive. Because of a large number of different responses, it appears that she was probably unaware of a singularly definitive factor that she attributed to the motivation of her attempt.

Research Question 3

Can patterns of social, psychological and behavioral factors be identified for subgroups of Oregon youth suicide attempters in 1989 and 1990?

Research question number two examined the frequency of factors for all 1,150 attempters. This research

question looks for meaningful differences in these same factors for four subgroups of attempters. The first subgroup is determined by gender, either male or female. The second subgroup is further divided by race, and White and Nonwhite. The final subgroup considers age, dividing attempters into young teens (12-14) and older teens (15-18).

The chi-square test of significance was applied to each of the factors and the subgroups. In some cases, there were not enough cases in each cell. When this occurred the researcher collapsed factors to put more cases in fewer cells. This section is presented by subgroups.

Gender

The place of the suicide attempt differed significantly between males and females (see Table 14). Of the females, 88.7% attempted suicide in their own home or someone else's home, while only 77.6% of the males attempted in this environment. A higher percentage of males than females attempted suicide in jail (2%), an institution (2.9%), a public place (3.4%), or on a street or highway (3.4%). The chi-square is invalid because of excessive low expected frequencies. By collapsing "Place of Attempt," statistically significant differences were discovered between male and female attempters.

Table 14

Crosstabulation of Youth Suicide by Place of Attempt by Gender*

Place of Attempt:	*Males (n=205)*		*Females (n=752)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*Own Home***	*140*	*68.3*	*613*	*81.5*
Other Home	*19*	*9.3*	*54*	*7.2*
School	*13*	*6.3*	*34*	*4.5*
Jail	*4*	*2.0*	*0*	*0.0*
Institution	*6*	*2.9*	*23*	*3.1*
Public Place	*7*	*3.4*	*5*	*0.7*
Foster Home	*9*	*4.4*	*15*	*2.0*
Street of Highway	*7*	*3.4*	*5*	*0.7*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*
*** 140 of 205 males (68.3%) attempted suicide in their own home.*

Table 15 has reduced the responses from eight to four. The chi-square is significant at p = .01. Females significantly attempt most often in the home. Males attempt more often than females in schools, institutions/ jails, streets, and public places.

Table 16 shows no significant difference between the number of previous suicide attempts of males and females. It is interesting to note however that 41.4% of the males claimed not to have tried previously to commit suicide versus 45.2% of the females. Perhaps in the predominantly

White culture in Oregon, males are more reticent to admit to a previous attempt than are females. The small difference is attributable to chance.

Table 15

Crosstabulation of Place of Attempt by Gender*

Place of Attempt:	*Male (n=205)*		*Female (n=752)*	
	Freq	*% Yes*	*Freq*	*% Yes*
Own Home/Other Home/Foster	*168*	*82.0*	*682*	*90.7*
School	*13*	*6.3*	*34*	*4.5*
Institution/Jail	*10*	*4.9*	*23*	*3.1*
Public Place/Street	*14*	*6.8*	*13*	*1.7*

** Chi-square significance level by Gender: chi = 18.87; df = 3; p = .01.*

Table 16

Crosstabulation of Previous Youth Suicide Attempts by Gender*

Previous Attempts:	*Males (n=239)*		*Females (n=902)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*No Previous Attempts***	*99*	*41.4*	*408*	*45.2*
One Previous Attempt	*19*	*7.9*	*67*	*7.4*
Two or More Previous Attempts	*12*	*5.0*	*37*	*4.1*
Previous Attempt/No Number	*38*	*15.9*	*180*	*20.0*
Not Stated/Unknown	*71*	*29.7*	*210*	*23.3*

** Chi-square significance level by Gender: chi = 5.85; df = 4; p = .21.*
*** Of 239 male attempters, 99 (41.4%) stated they had made no previous attempt.*

Although there is not a significant finding between gender and diagnosed psychological illness, it is interesting that males who attempt suicide may be more commonly diagnosed with chronic depression, bipolar disorder and schizophrenia (see Table 17). Females are more frequently diagnosed with depression which is not specific (nos). Due to less than five expected cases in several cells, the Psychological Illness factor was collapsed. Table 18 summarizes the findings which were not significant.

Table 17

Crosstabulation of Youth Suicide by Previous Psychological Illness by Gender*

Place of Residence:	*Males (n=57)*		*Females (n=197)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*Chronic Depression***	*26*	*45.6*	*81*	*41.1*
Bipolar Depression	*1*	*1.8*	*3*	*1.5*
Depression (Nos)	*6*	*10.5*	*33*	*16.8*
Schizophrenia	*2*	*3.5*	*2*	*1.0*
Multi/Other	*22*	*38.6*	*78*	*39.6*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*

*** Of 57 Males, 26 (45.6%) had been diagnosed as having chronic depression.*

Table 18

Crosstabulation of Youth Suicide Attempters Diagnosed with Psychological Illnesses by Gender*

Psychological Illness:	*Males (n=239)*		*Females (n=902)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*Depression, Schizophrenia***	*57*	*23.8*	*197*	*21.8*
No Diagnosed Illness	*69*	*28.9*	*255*	*28.3*
Unknown	*113*	*47.3*	*450*	*49.9*

** Chi-square significance level by Gender: chi = .63; df = 2; p = .73.*
*** Of 239 male attempters, 57 (23.8%) were diagnosed with a psychological illness.*

Blood Alcohol Level is a relatively accurate measure because it is automatically assessed in the emergency room (see Table 19). Over half of both male and female groups had no alcohol in their blood at the time of the attempt. Males had a larger percentage in each level of blood alcohol, totaling a higher level of alcohol use at the time of attempt. These differences were statistically significant at p = .01.

Table 20 shows a statistically significant difference between the place of residence of male and female attempters. Females are more likely than males to live with their mother and father (see Table 21). Males are more likely than females to be a ward of the Children Services Division.

Table 19

Crosstabulation of Level of Blood Alcohol at Time of Attempt by Gender*

Blood Alcohol Level:	*Male (n=239)*		*Female (n=902)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*None***	*128*	*53.6*	*550*	*61.0*
.01 to 1.8	*10*	*4.2*	*15*	*1.7*
1.8 or more	*12*	*5.0*	*23*	*2.5*
Alcohol Present/Amount Unknown	*89*	*37.2*	*314*	*34.8*

** Chi-square significance level by Gender: chi = 11.3; df = 3; p = .01.*
*** Of 239 Males, 128 (53.6%) had no alcohol in their blood at the time of the attempt.*

Table 20

Crosstabulation of Youth Suicide by Place of Residence by Gender*

Place of Residence:	*Males (n=202)*		*Females (n=795)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*Mother and Father***	*57*	*28.2*	*279*	*35.1*
Father Only	*4*	*2.0*	*38*	*4.8*
Mother Only	*60*	*29.7*	*221*	*27.8*
Parent and Step-Parent	*22*	*10.9*	*100*	*12.6*
Homeless	*8*	*4.0*	*4*	*0.5*
Relative	*12*	*5.9*	*52*	*6.5*
Friends: Male & Female	*8*	*4.0*	*37*	*4.7*
CSD	*31*	*15.3*	*64*	*8.1*

** Chi-square significance level by Gender: chi = 15.2; df = 7; p = .02 (Homeless was not included in chi-square tabulation).*
** Of 202 male attempters, 57 (28.2%) were living with their mother and father at the time of the attempt.*

Table 21

Crosstabulation of Youth Suicide by Residence with Natural Parents by Gender*

Place of Residence:	*Males (n=202)*		*Females (n=795)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*One or More Natural Parents***	*143*	*70.8*	*638*	*80.3*
No Natural Parents	*59*	*29.2*	*157*	*19.7*

** Chi-square significance level by Gender: chi = 8.49; df = 1; p = .01.*
*** Of 202 male attempters, 143 (70.8%) were living with at least one natural parent at the time of the attempt.*

By combining categories, a significant difference has been found between male and female attempters in whether they live with natural parents. Females appear to stay with natural parents more than males. Since females also attempt much more often, it would seem that staying with natural parents does not deter the risk of suicide for young girls.

Several social, psychological, and behavioral factors describe the youth suicide attempter by gender (see Table 22). General use of drugs, going to a new school and pregnancy seem to show significant differences between males and females. Males (15.2%) and females (7.6%) reported using drugs generally. Seven point six percent males reported that attending a new school was a factor in their suicide attempt, with 2.1% females agreeing. Males, 7.4%, identified problems with the law, whereas only 2.6% females did so. Rape and sexual abuse was identified as

Table 22

Crosstabulation of Youth Suicide Attempt Factors by Gender

Youth Suicide Attempt Factors:	*Males*		*Females*		*Chi Value*	*Chi-Value*
	f:n	*% Yes*	*f:n*	*% Yes*		*p =*
*Peer Pressure**	*2:81*	*2.5*	*13:309*	*4.2*	*0.34*	*0.56*
Previous Attempt by Friend	*0:79*	*0.0*	*6:308*	*1.9*	*1.5*	*0.21*
Recent Crisis	*30:185*	*16.2*	*113:659*	*17.1*	*0.9*	*0.77*
Death in the Family	*2:79*	*2.5*	*11:308*	*3.6*	*0.21*	*0.65*
General Drug Use	*12:79*	*15.2*	*24:308*	*7.8*	*4.08*	*0.04*
New School	*14:185*	*7.6*	*14:659*	*2.1*	*13.34*	*0.01*
Family Discord	*49:185*	*26.5*	*208:659*	*31.6*	*1.76*	*0.18*
Problems With the Law	*6:81*	*7.4*	*8:309*	*2.6*	*4.31*	*0.04*
Pregnancy	*14:198*	*7.1*	*72:715*	*10.1*	*1.63*	*0.2*
Problems in School	*29:185*	*15.7*	*95:659*	*14.4*	*0.18*	*0.66*
Race and Sexual Abuse	*2:186*	*1.1*	*32:659*	*4.9*	*5.37*	*0.2*
Taking Prescription Drug	*14:100*	*14.0*	*39:350*	*11.1*	*0.61*	*0.43*
Physical Abuse	*6:185*	*3.2*	*19:659*	*2.9*	*0.7*	*0.80*

** Of 81 male attempters, 2 (2.5%) identified peer pressure as a factor in their attempt.*

having a significant difference ($p = .02$) between the reported rate of males (1.1%) and females (4.9%). The majority of the factors, nine, were similarly identified by both males and females. Although it is not statistically significant, it is interesting that 10 of the male population identified pregnancy as a contributing factor. Although not significantly different between males (26.5%) and females (31.6%), both groups are troubled by family discord.

Summarizing the statistically significant differences for the subgroup "Gender," several factors display chi-square probability levels of .04 or less. The "Place of Attempt" factor shows that females most often attempt in their own home. Males show a significantly higher Blood Alcohol Level at the time of the attempt. Females most often are living with one of their natural parents, while males show a greater percentage of residence without immediate family members. In reviewing the factors which youths say contribute to their attempt, males showed a larger percentage of "General Drug Use." "New School" shows a surprisingly large number of males attributing their attempt to a new school. Males had a significantly larger percentage of responses attributing the attempt to problems with the law than did females. Females more often responded that "Rape or Sexual Abuse" had influenced

their actions, however, low cell numbers do not allow a chi-square test.

Race

The second subgroup of the attempter group to be compared with each factor is race. Race is defined as White, Black, Native American, Hispanic, Other, and Unknown. The category "Other" contains primarily Asians. "Other" was a single response on the data sheet going to hospital emergency rooms. An exact breakdown of participants within this category is not available. "Unknown" is also a relatively small category which probably contains cases who left the hospital without responding to race, and who were not easily definable by emergency room staff.

The Race variable has six separate responses (White, Black, Native American, Hispanic, Other/Asian, and Unknown). Many crosstabulations resulted in excessively low expected frequencies. The information is informative to the field of youth suicide, so the material was presented, but without chi-square probabilities. Following each table in the Race section is another table in which Race has been collapsed to White and Nonwhite. The White and Nonwhite tables do display chi-square probabilities.

The White population is by far the largest race group (see Table 6). All minority races together make up less than 10% of the 1989-1990 Oregon population. The results of these race comparisons cannot be considered statistically significant, but they are informative. To address this problem a second table has been prepared for each factor, collapsing race to White/Nonwhite, eliminating the small cells. This second table displays the chi-square probability results.

Table 23 shows the relationship between gender and race of attempters. Eliminating the two less-descriptive categories, Other and Unknown, leaves a male range of 20-29%, and a female range of 70-79%. These ranges reflect a trend of a predominance of female attempters in all races. Because of the small number of cases in some cells, race is collapsed to White and Nonwhite. Results were still not statistically significant at $p = .20$.

Table 24 again reflects a much larger percentage of female attempters in all races. It shows an almost 4 to 1 ratio of White females to White males, and a 3 to 1 ratio in the combined Nonwhite group. The chi-square probability was not significant at $p = .20$.

Table 23

Crosstabulation of Race and Youth Suicide Attempters by Gender*

Gender:	*White (n=975)*		*Black (n=35)*		*Native American (n=17)*		*Hispanic (n=55)*		*Other** (n=8)*		*Unknown (n=35)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
*Male****	*198*	*20.3*	*8*	*22.9*	*5*	*29.4*	*14*	*25.5*	*8*	*33.3*	*6*	*17.1*
Female	*777*	*79.7*	*27*	*77.1*	*12*	*70.6*	*41*	*74.5*	*16*	*66.7*	*29*	*82.9*

** Chi-square level of significance for Gender by Race: chi = 5.72; df = 1; p = 0.57.*

*** Other includes Asian.*

**** Of 975 White attempters, 198 (20.3%) were male.*

Table 24

Crosstabulation of Gender of Youth Suicide Attempters by Race*

*Gender:***	*White (n=975)*		*Nonwhite (n=166)*	
	Freq	*%*	*Freq*	*%*
*Male****	*198*	*20.3*	*41*	*24.7*
Female	*777*	*79.7*	*125*	*75.3*

** "Race" has been coded as White/Nonwhite.*

*** Chi-square level of significance for Gender/Race: chi = 1.65; df = 1; p = .20.*

**** Of 975 White suicide attempters, 198 (20.3%) were male.*

Place of Attempt is compared to race through crosstabulation (see Table 25). The majority of attempters in each cultural group attempted at home (62.5-87.5%). In all areas the Native American population appears to select differently than other population groups. A smaller percentage of Native American youths attempted at home, but a larger percentage attempted in school, jail, and on streets or highways. Only eight Native Americans were included in the study, which are too few to rule out chance. Despite the small number, the Native American attempt population does appear to respond differently. The "Other" designation, primarily Asian, reflects percentages similar to the other population groups.

Table 25

Crosstabulation of Race and Youth Suicide
Place of Attempt*

Place of Attempt:	*White (n=834)*		*Black (n=28)*		*Native American (n=8)*		*Hispanic (n=41)*		*Other** (n=24)*		*Unknown (n=27)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
*Own Home****	*656*	*78.7*	*23*	*82.1*	*5*	*62.5*	*30*	*73.2*	*21*	*87.5*	*22*	*81.5*
Other Home	*64*	*7.7*	*2*	*7.1*	*0*	*0*	*5*	*12.2*	*2*	*8.3*	*1*	*3.7*
School	*42*	*5.0*	*1*	*3.6*	*1*	*12.5*	*1*	*2.4*	*1*	*4.2*	*1*	*3.7*
Jail	*2*	*0.2*	*0*	*0*	*1*	*12.5*	*1*	*2.4*	*0*	*0*	*0*	*0*
Institution/Foster Home	*47*	*5.6*	*2*	*7.1*	*0*	*0*	*3*	*7.3*	*0*	*0*	*1*	*3.7*
Public Place/Street	*23*	*2.8*	*0*	*0*	*1*	*12.5*	*1*	*2.4*	*0*	*0*	*2*	*7.4*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*
*** Other includes Asian.*
**** Of 834 White attempters, 656 (78.7%) attempted suicide in their own home.*

Table 26 shows almost no difference between the places where youth "White" or "Nonwhite" attempters try to commit suicide. Percentages for the White and Nonwhite groups are all extremely close.

Table 26

Crosstabulation of Places of Youth Suicide Attempts by Race*

*Places where Youth Suicide Attempts Have Been Made:***	*White (n=834)*		*Nonwhite (n=128)*	
	Freq	*%*	*Freq*	*%*
*Own Home****	*656*	*78.7*	*101*	*78.9*
Other Home	*64*	*7.7*	*10*	*7.8*
School	*42*	*5.0*	*5*	*3.9*
Jail	*2*	*0.2*	*2*	*1.6*
Institution/Foster Home	*47*	*5.6*	*6*	*4.7*
Public Place/Street or Highway	*23*	*2.8*	*4*	*3.1*

** Race has been categorized as White/Nonwhite.*
*** Chi-square level of significance for Attempt Places by Race: chi = 9.42; df = 5; p = .22.*
**** Of 656 White attempters (78.7%) attempted suicide in their own home.*

Table 27 has been condensed by combining Places of Attempt in a different manner. However, there was even less statistically significant findings.

Table 27

Crosstabulation of Place of Attempt of Youth Suicide Attempters by Race*

*Place of Attempt:***	*White (n=834)*		*Nonwhite (n=128)*	
	Freq	*%*	*Freq*	*%*
*Own Home, Other Home, Foster Home****	*739*	*88.6*	*116*	*90.6*
School	*42*	*5.0*	*5*	*3.9*
Institution/Jail	*30*	*3.6*	*3*	*2.3*
Public Place or Street	*23*	*2.8*	*4*	*3.1*

** "Race" has been coded as White/Nonwhite.*

*** Chi-square level of significance for Gender/Race: chi = .90; df = 3; p = .82.*

**** Of 834 White suicide attempters, 739 (88.6%) attempted in a home environment.*

The crosstabulation between Race and Previous Attempt (see Table 28) shows some interesting frequencies. Over half of the Black sample had attempted suicide at least once before. Of the "Other" group, 72% had attempted once before. This means that almost three out of four of these attempters repeat. A larger percentage of Blacks (14%) attempted two or more times. This is almost double the second largest group, White (7.7%). The Hispanic portion of the population has the largest percentage of attempters, 31%, that stated they had never attempted before.

Table 28

Crosstabulation of Race and Previous Youth Suicide Attempts*

Previous Attempts:	*White (n=979)*		*Black (n=35)*		*Native American (n=17)*		*Hispanic (n=58)*		*Other** (n=25)*		*Unknown (n=36)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
*1 Attempt****	*425*	*43.4*	*19*	*54.3*	*5*	*29.4*	*25*	*43.1*	*18*	*72.0*	*18*	*50.0*
2 or More Attempts	*75*	*7.7*	*5*	*14.3*	*1*	*5.9*	*3*	*5.2*	*2*	*8.0*	*0*	*0*
Previous Attempt/No Number	*39*	*4.0*	*3*	*8.6*	*3*	*17.6*	*3*	*5.2*	*0*	*0*	*1*	*2.8*
Unknown	*193*	*19.7*	*2*	*5.7*	*4*	*23.5*	*9*	*15.5*	*2*	*8.0*	*9*	*25.0*
No Previous Attempt	*247*	*25.2*	*6*	*17.1*	*4*	*23.5*	*18*	*31.0*	*3*	*12.0*	*8*	*22.2*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*

*** Other includes Asian.*

**** Of 979 white attempters, 425 (43.4%) stated they had attempted suicide once previously.*

The chi-square test of significance identified no statistically significant differences between the White and Nonwhite group (see Table 28). Nonwhites maintained a larger percentage not attempting previously at all, but also had a larger percentage of multiple attempters (25.2%).

Table 29

Crosstabulation of Previous Youth Suicide Attempts by Race*

*Number of Previous Attempts:***	*White (n=979)*		*Nonwhite (n=171)*	
	Freq	*%*	*Freq*	*%*
*No Previous Attempt****	*425*	*43.4*	*85*	*49.7*
1 Previous Attempt	*75*	*7.7*	*11*	*6.4*
2 or More Previous Attempt	*39*	*4.0*	*10*	*5.8*
Previous Attempt/# Unknown	*193*	*19.7*	*26*	*15.2*
Not Stated/Unknown	*247*	*25.2*	*39*	*22.8*

** Race has been categorized as White/Nonwhite.*
*** Chi-square level of significance for Previous Attempt by Race: chi = 5.8; df = 4; p = .32.*
**** Of 425 White attempters, 425 (43.4%) stated they had no previous attempts.*

Table 30 summarizes the comparison of a previously diagnosed psychological illness and race. The comparison is noteworthy because it shows the breakdown of youth diagnosed with a psychological illness. The largest frequency of those diagnosed in all cultural groups (41% to 75%) were diagnosed with chronic depression.

Table 30

Crosstabulation of Youth Suicide Attempters by Race and Previous Psychological Illness*

Psychological Illness:	*White (n=214)*		*Black (n=8)*		*Native American (n=4)*		*Hispanic (n=17)*		*Other** (n=6)*		*Unknown (n=9)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
*Chronic Depression****	*88*	*41.1*	*4*	*50.0*	*3*	*75.0*	*8*	*47.1*	*4*	*66.7*	*3*	*33.3*
Bi-Polar	*2*	*0.9*	*0*	*0.0*	*0*	*0.0*	*1*	*5.9*	*0*	*0.0*	*1*	*11.1*
Depression Nos	*35*	*16.4*	*0*	*0.0*	*0*	*0.0*	*2*	*11.8*	*1*	*16.7*	*1*	*11.1*
Schizophrenic	*3*	*1.4*	*0*	*0.0*	*0*	*0.0*	*1*	*5.9*	*0*	*0.0*	*0*	*0.0*
Multiple/Other	*86*	*40.2*	*4*	*50.0*	*1*	*25.0*	*5*	*29.4*	*1*	*16.7*	*4*	*44.4*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*

*** Other includes Asian.*

**** Of 214 White attempters, 88 (41.1%) have been diagnosed with chronic depression.*

In Table 31, Psychological illness is not statistically significant by White and Nonwhite groups. Nonwhites show a higher percentage of all forms of depression and schizophrenia except for not specific forms of depression (nos).

Table 31

Crosstabulation of Diagnosed Psychological Illness in Youth Suicide Attempters by Race*

*Diagnosed Illness:***	*White (n=214)*		*Nonwhite (n=44)*	
	Freq	*%*	*Freq*	*%*
*Chronic Depression****	*88*	*41.4*	*22*	*50.0*
Bi-Polar Disorder	*2*	*0.9*	*2*	*4.5*
Depression Nos	*35*	*16.4*	*4*	*9.1*
Schizophrenia	*3*	*1.4*	*1*	*2.3*
Multi/Other	*86*	*40.2*	*15*	*34.1*

** Race has been categorized as White/Nonwhite.*

*** Chi-square level of significance for Psychological Illness by Race: chi = 2.09; df = 4; p = .24.*

****Of 214 White attempters, 88 (41.4%) suffered from chronic depression*

Table 32, Blood Alcohol Level, shows a significant difference in the blood alcohol level of White and Nonwhite youth. The "Nonwhite" group shows a higher percentage of low alcohol use (4.7%), while the "White" group (.9%) shows a larger percentage of higher levels of alcohol at the time of the attempt.

Table 32

Crosstabulation of Youth Suicide Attempters by Race and Blood Alcohol Level at Time of Attempt*

Blood Alcohol Level:	*White (n=979)*		*Black (n=35)*		*Native American (n=17)*		*Hispanic (n=58)*		*Other** (n=25)*		*Unknown (n=34)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
*None****	*581*	*59.3*	*26*	*74.3*	*8*	*47.1*	*30*	*51.7*	*16*	*64.0*	*19*	*52.8*
1 or less	*9*	*0.9*	*0*	*0.0*	*1*	*5.9*	*2*	*11.8*	*3*	*12.0*	*2*	*5.6*
1.1 to 1.8	*8*	*0.8*	*0*	*0.0*	*1*	*5.9*	*1*	*1.7*	*0*	*0.0*	*0*	*0.0*
1.8 or more	*30*	*3.1*	*1*	*2.9*	*0*	*0.0*	*2*	*3.4*	*0*	*0.0*	*2*	*5.6*
Alcohol Present/Amount Unknown	*351*	*35.9*	*8*	*22.9*	*7*	*41.2*	*23*	*39.7*	*6*	*24.0*	*13*	*36.1*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*

*** Other includes Asian.*

**** Of 979 White attempters, 581 (59.3%) showed no blood alcohol level at the time of attempt.*

The comparison of Race by Blood Alcohol Level in Table 32 is not statistically significant primarily because of the small numbers of cased in some cells. Only 2.9% of the Black population had some amount of alcohol in their blood compared with the Native American population at the high end of the range at 53.0%. When considered as White and Nonwhite, the results are statistically significant (see Table 33). Nonwhite shows a larger percentage of youth with a .01 to 1.8 level of alcohol at time of admission.

It is worth noting that the largest percentage of Blacks (68.6%) report no drug usage (see Tables 34 and 35). The Hispanic group reports the smallest percentage of nonusers (39.7%). Of those that report drug use, marijuana is the most commonly used drug. All other drug use seems low, and involves a small total number. Of course drug use is illegal, and it is reasonable that many youths may be wary of reporting their activities in this area.

Table 33

Crosstabulation of Blood Alcohol Level by Race*

*Blood Alcohol Level at Time of Hospital Admission:***	*White (n=979)*		*Nonwhite (n=171)*	
	Freq	*%*	*Freq*	*%*
No Alcohol Present	*581*	*59.3*	*99*	*57.9*
.01 to 1.8	*17*	*1.7*	*10*	*5.8*
1.8 or more	*30*	*3.1*	*5*	*2.9*
Alcohol Present/% Unknown	*351*	*35.9*	*57*	*33.3*

** Race has been categorized as White/Nonwhite.*
*** Chi-square level of significance for Previous Attempt by Race: chi = 10.8; df = 3; p = .01.*

Table 34

Crosstabulation of Youth Suicide Attempters by Race and Drug Preference at Time of Attempt*

Drug:	*White (n=979)*		*Black (n=35)*		*Native American (n=17)*		*Hispanic (n=58)*		*Other** (n=25)*		*Unknown (n=36)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
*No Drug Used****	*491*	*50.2*	*24*	*68.6*	*10*	*58.8*	*23*	*39.7*	*16*	*64.0*	*18*	*50.0*
Marijuana	*27*	*2.8*	*1*	*2.9*	*1*	*5.9*	*1*	*1.7*	*0*	*0*	*0*	*0*
Cocaine/Crack	*4*	*0.4*	*0*	*0*	*1*	*5.9*	*1*	*1.7*	*0*	*0*	*0*	*0*
Amphetamine, Speed, Crank, Tranquilizer	*7*	*0.7*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Drug Use Unknown	*437*	*44.6*	*9*	*25.7*	*4*	*23.5*	*32*	*55.2*	*9*	*36.0*	*17*	*47.2*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*

*** Other includes Asian.*

**** Of 979 White attempters, 491 (50.2%) stated they were not using any drug at the time of attempt.*

Table 35

Crosstabulation of Type of Drug Used by Youth Suicide Attempters by Race*

*Type of Drug:***	*White (n=979)*		*Nonwhite (n=171)*	
	Freq	*%*	*Freq*	*%*
*No Drug Use****	*491*	*50.2*	*91*	*53.2*
Marijuana	*27*	*2.8*	*3*	*1.8*
Cocaine/Crack	*4*	*0.4*	*2*	*1.2*
Amphetamine, Crank	*7*	*0.7*	*2*	*1.2*
LSD	*2*	*0.2*	*0*	*0*
Multiple Varieties	*11*	*1.1*	*2*	*1.2*
Unknown	*437*	*44.6*	*71*	*41.5*

** "Race" has been coded as White/Nonwhite.*
*** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies, five cases per cell.*
**** Of 979 White attempters, 491 (50.2%) stated no drug use.*

In Table 36 there were no statistically significant differences between the races regarding whom the child was living with at the time of the suicide attempt. White and Other (primarily Asian), had 33.9% and 57.1% respectively living with both parents at the time of the suicide attempt. The Native American population was lowest with only 9.1% living with both parents. Of course the Native American population is very small, and may not be representative. All minority populations have at least one in four attempters living with mothers only. Native American, Hispanic, and White populations all have higher

percentages of homeless youth attempters than do Blacks. The Native American population has a higher percentage of youth attempters living with peers of the opposite sex. Living with a relative seems to be most common with Black (16.7) and Native American (18.2) attempters, but rare with White youths (6.5%).

Table 37 reflects no significant differences but there are some areas of interest. Whites show a surprisingly larger percentage of youth attempters living with "father only," "parent and stepparent," while Nonwhites maintain a larger percentage of attempters living with "mothers only," "homeless," "male/female friends, and "CSD or foster homes."

Table 38 reduces the frequency differences shown in Table 37 substantially. No significant differences were found.

Table 38 summarizes the differences between the races regarding several factors. None of these comparisons show a statistically significant difference, however there are several interesting findings. Responses showing general drug use was high for Blacks (20%) and Native American (25%) whereas the same group showed a high percentage of attempters with no alcohol in their blood level.

Table 36

Crosstabulation of Race and Youth Suicide Attempters by Residential Guardian*

Who the Youth was Living with:	*White (n=873)*		*Black (n=30)*		*Native American (n=11)*		*Hispanic (n=39)*		*Other** (n=21)*		*Unknown (n=28)*	
	Freq	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*	*Freq*	*%*
Mother and Father	296	33.9	8	26.7	1	9.1	9	23.1	12	57.1	12	2.7
Father Only	39	4.5	2	6.7	0	0.0	0	0.0	0	0.0	1	3.6
Mother Only	239	27.4	12	40.0	4	36.4	14	35.9	5	23.8	7	25.0
Parent and Stepparent	113	12.9	1	3.3	0	0.0	7	17.9	0	0.0	3	10.7
Homeless	9	10.5	0	0.0	1	9.1	1	9.1	0	0.0	0	0.0
Relative	57	6.5	5	16.7	2	18.2	0	0.0	1	4.8	0	0.0
Male or Female Friend	38	4.4	0	0.0	2	18.2	2	5.1	1	4.8	2	7.1
CSD/Foster Home	82	9.4	2	6.7	1	9.1	5	12.8	2	9.5	3	10.7

* Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.** Other includes Asian.

Table 37

Crosstabulation of Who Youth Suicide Attempters Live With by Race*

*People Youth Suicide Attempters Were Living With at Time of Attempt:***	*White (n=873)*		*Nonwhite (n=129)*	
	Freq	*%*	*Freq*	*%*
*Both Parents****	*296*	*33.9*	*42*	*32.6*
Father Only	*39*	*4.5*	*3*	*2.3*
Mother Only	*239*	*27.4*	*42*	*32.6*
Parent & Stepparent	*113*	*12.9*	*11*	*8.5*
Homeless	*9*	*1.0*	*3*	*2.3*
Relatives	*57*	*6.5*	*8*	*6.2*
Male/Female Friends	*38*	*4.4*	*7*	*5.4*
CSD & Foster Homes	*82*	*9.4*	*13*	*10.1*

** "Race" has been coded as White/Nonwhite.*
*** Chi-square level of significance for Lives With by Race: chi = 6.07; df = 7; p = .53.*
****Of 873 White attempters, 296 or 33.9%, were living with both parents at the time of attempt.*

Family discord, although not significantly different between the races is surprisingly high in all races (25% to 44%). As an educator I am surprised at the low percentage of Black and Native American attempters who responded that school problems were not a factor. Both races in my experience in education in Oregon have had large percentages of students with significant academic and social problems in the education system.

Table 38

Crosstabulation of Race and Identified Youth Suicide Factors*

Factors:	White		Black		Native American		Hispanic		Other**		Unknown	
	f:n	%	f:n	%	f:n	%	f:n	%	f:n	%	f:n	%
Peer Pressure***	13:343	3.8	0	0	0	0	1:13		0	0	1:15	6.7
Attempt by Friend	5:343	1.5	1:10	10	0:4	0	0:13	0	0:6	0	0:14	0.0
Recent Crisis	127:724	18	4:28	14	2:13	15	4:40	10	3:21	14.3	4:23	17.0
Death in Family	10:343	2.9	1:10	10	0:4	0	1:13	7.7	0:6	0	1:14	7.1
General Drug Use	31:343	9	2:10	20	1:4	25	1:13	7.7	0:6	0	1:14	7.1
New School	25:724	3.5	0:28	0	1:13	7.7	1:40	2.5	0:21	0	1:23	4.3
Family Discord	222:724	31	8:28	29	4:13	31	10:40	25	6:21	28.6	10:23	44.0
Problems With Law	11:343	3.2	1:10	10	0:4	0	1:13	7.7	0:9	0	1:15	6.7
Pregnancy	75:784	9.6	2:30	6.7	1:14	7.1	5:45	11	1:21	4.8	3:25	12
Problems in School	109:724	15	2:28	7.1	1:13	7.7	4:40	10	5:21	23.8	4:23	17.0
Rape or Sex Abuse	31:725	4.3	0:28	0	0:13	0	2:40	5	0:21	0	1:23	4.3
Prescription Drug	41:375	11	2:21	9.5	1:9	11	3:17	18	2:13	15.4	4:17	24.0
Physical Abuse	17:724	2.3	2:28	7.1	0:13	0	2:40	5	0:21	0	5:24	21.0

* *Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*
** *Other includes Asian.*
*** *Of 343 White attempters, 13 (3.8%) stated peer pressure was a factor in their attempt.*

The collapsing of Race to "White" and "Nonwhite" revealed one statistically significant finding: Physical Abuse ($p = .04$) (see Table 39). Physical Abuse was listed significantly less as contributing to the attempt by White participants, while remaining a factor (7.1%) by Nonwhite youth.

Age

Age was selected as a subgroup due to the frequency of early teen and late teen differentiation in some youth suicide literature. The division of birth years was coded to eliminate those few very young cases from 6 through 11. Birth years 1974 through 1977 were coded into a young group, and all remaining years into an older group. This particular division was made to reflect developmentally similar traits within each group. Table 40 shows very little difference between younger and older youths by race.

Significant differences occur between the number of males and females in the younger and the older group (see Table 41). These differences are statistically significant ($p = 0.3$). For both age groups, females are more likely to attempt suicide than males. However, older males (23.1%) are more likely to attempt suicide than younger males (17.6%). Younger females (82.4%) are more likely to attempt suicide than older females (76.9%).

Table 39

Crosstabulation of Youth Suicide Factors by Race*

Factors:	*White*		*Nonwhite*		*Chi*	*Chi-Sq Level of Signif-icance*
	Freq	*%*	*Freq*	*%*		
Peer Pressure**	13:343	3.8	2:51	3.9	***	***
General Alcohol Use	92:110	83.6	11:15	73.3	.97	0.44
Recent Crisis	127:724	17.5	17:125	13.6	1.18	0.28
Death in the Family	10:343	2.9	3:47	6.4	***	***
General Drug Use	31:343	9.0	5:47	10.6	.13	0.13
New School	25:724	3.5	3:125	2.4	***	***
Family Discord	222:724	30.7	38:125	30.4	.01	0.95
Problems With the Law	11:343	3.2	3:51	5.9	***	***
Pregnancy	75:784	9.6	12:135	8.9	.06	0.8
Physical Abuse	17:724	2.3	9:126	7.1	8.32	0.04
Rape or Sexual Abuse	31:725	4.3	3:125	2.4	***	***
Use of Prescription Medication	41:375	10.9	12:77	15.6	1.33	0.25
Attempt of a Friend	5:343	1.5	1:47	2.1	***	***
School Problems	109:724	15.1	16:125	12.8	.43	0.51

* Race has been coded into "White"/"Nonwhite."
** Of 343 White attempters, 13 (3.8%) reported peer pressure was a factor in their attempt.
*** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.

Table 40

Crosstabulation of Suicide Attempters:
Age and Race*

Race White/Nonwhite:	*Younger (n=562)*		*Older (n=523)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*White***	*486*	*86.5*	*443*	*84.7*
Nonwhite	*76*	*13.5*	*80*	*15.3*

** Chi-square significance level by Age: chi = .69; df = 1; p = .41.*
*** Of 562 Younger Teens, 486 (86.5%) were White.*

Table 41

Crosstabulation of Suicide Attempters:
Age and Gender*

Gender:	*Younger (n=562)*		*Older (n=523)*	
	Freq	*% Yes*	*Freq*	*% Yes*
*Male***	*99*	*17.6*	*119*	*23.1*
Female	*462*	*82.4*	*396*	*76.9*

** Chi-square significance level by Age: chi = 4.95; df = 1; p = .03.*
*** Of 562 younger attempters, 99 (17.6%) were White.*

A greater percentage of young teens commit suicide in their own home (81.0%) than older teens (75.8%) (see Table 42). This probably reflects less mobility and fewer options on the part of younger teens. This may also reflect a greater dependency on the family by younger youth which is to be expected. The home areas were recorded as was jail and institutions; statistically significant differences were found (p = .01).

Table 42

Crosstabulation of Suicide Attempters:
Age by Attempt Place

Place of Attempt	*Younger (n=527)*		*Older (n=413)*	
	Freq	*%*	*Freq*	*%*
*Own Home***	*426*	*81.0*	*313*	*75.8*
Other Home	*32*	*6.1*	*40*	*9.7*
School	*34*	*6.5*	*12*	*2.9*
Jail	*4*	*0.8*	*0*	*0.0*
Institution	*9*	*1.7*	*19*	*4.6*
Foster Home	*12*	*2.3*	*12*	*2.9*
Street or Highway	*8*	*1.5*	*4*	*1.0*

** Chi-square level of significance for Age/Attempt Place: chi = 32.3; df = 6; p = 01.*
*** Of 489 young teens, 396 (81%) attempted suicide in their own home.*

Table 43 shows fewer of the younger group reporting a Previous Attempt (45.6%) than the older group (41.5%). Perhaps younger teens are less aware of the consequences of an attempt than are older teens.

Other specific depression shows a higher percentage of younger teens diagnosed than older teens (see Table 44). Statistical differences between younger and older teens cannot be determined because of excessive numbers of cells with low expected frequencies.

Table 43

Crosstabulation of Suicide Attempters: Age by the Number of Previous Attempts*

Number of Previous Attempts:	*Younger (n=562)*		*Older (n=523)*	
	Freq	*%*	*Freq*	*%*
*No Previous Attempt***	*256*	*45.6*	*217*	*41.5*
1 Previous Attempt	*55*	*9.8*	*25*	*4.8*
2 or More Previous Attempt	*21*	*3.7*	*26*	*5.0*
Previous Attempt/# Unknown	*95*	*16.9*	*117*	*22.4*
Not Stated/Unknown	*135*	*24.0*	*138*	*26.4*

** Chi-square level of significance for Age/Previous Attempt: chi = 15.93; df = 4; p = .01.*
*** Of 562 younger attempters, 256 (45.6%) attempted suicide in their own home.*

Table 44

Crosstabulation of Suicide Attempters: Age by Previously Diagnosed Psychological Illness*

Psychological Illness:	*Younger (n=84)*		*Older (n=172)*	
	Freq	*%*	*Freq*	*%*
*Chronic Depression***	*34*	*40.5*	*74*	*43.0*
Bi-Polar	*1*	*1.2*	*3*	*1.7*
Depression nos	*16*	*19.0*	*23*	*13.4*
Schizophrenia	*1*	*1.2*	*3*	*1.7*
Multi/Other	*32*	*38.1*	*69*	*40.1*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*
*** Of 84 Younger attempters, 34 (40.5%) had been diagnosed with chronic depression.*

Table 45 reflects a larger percentage of young teens not using drugs. This is probably due to both availability and cost. The type of drug used cannot be statistically analyzed due to low expected cell frequencies.

Table 45

Crosstabulation of Suicide Attempters:
Age by Preferred Drug*

Drug:	*Younger (n=562)*		*Older (n=523)*	
	Freq	*%*	*Freq*	*%*
*No Drug Use***	*295*	*52.5*	*249*	*47.6*
Marijuana	*15*	*2.7*	*15*	*2.9*
Cocaine, Crack	*0*	*0.0*	*6*	*1.1*
Amphetamine, Crack	*4*	*0.7*	*5*	*1.0*
LSD	*1*	*0.2*	*1*	*0.2*
Multiple	*5*	*0.9*	*8*	*1.5*
Unknown	*242*	*43.1*	*239*	*22.0*

** Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*

*** Of 562 younger teens, 295 (52.5%) stated they did not use drugs.*

Statistically significant differences occur between older teens and younger teens in Blood Alcohol Level at the time of the Attempt (see Table 46). Again, this is probably contributable to availability and cost. There is less alcohol use by younger teens in every category.

Table 46

Crosstabulation of Suicide Attempters: Age by Blood Alcohol Level at Time of Attempt*

Blood Alcohol Level:	*Younger (n=369)*		*Older (n=423)*	
	Freq	*%*	*Freq*	*%*
*No Alcohol Present***	*254*	*68.8*	*423*	*54.7*
.01 to 1.8	*3*	*.8*	*19*	*2.5*
1.8 or more	*3*	*.8*	*32*	*4.1*
Alcohol Present/% Unknown	*109*	*29.5*	*299*	*38.7*

** Chi-square level of significance for Age/Blood Alcohol Level: chi = 26.7; df = 3; p = .01.*
*** Of 369 younger teens, 254 (68.8%) had no blood alcohol level.*

Table 47 presents a statistically significant difference between the two age groups respective to "Who the youth was living with at the time of the attempt." It is surprising that a smaller percentage of the younger population were living with both parents at the time of the attempt. Not surprising is the percentage (8.4%) of older teens living with friends. However, these noted differences may still be related to chance.

Table 48 summarizes the findings of several factors comparing younger and older youths. Statistically significant findings occurred in areas of "peer pressure," "recent crisis," "general drug use," and "physical abuse." A larger percentage of younger youth attempters (7.1% vs.

2.4%) listed "peer pressure" as a factor in their suicide attempt. Older youths more often listed a recent crisis (11.6% vs. 19.9%) as a contributing factor in their suicide attempt. Not surprising, older youths most often (6.8% vs. 13.5%) listed drug use as a factor in their behavior. Again, physical abuse was listed by young attempters more than by the older group (5.3% vs. 1.8%).

Table 47

Crosstabulation of Suicide Attempters: Age by the Persons They Were Living With at Time of Attempt*

Persons Attempter Living With:	*Younger (n=502)*		*Older (n=440)*	
	Freq	*%*	*Freq*	*%*
*Both Parents***	*165*	*32.9*	*158*	*35.9*
Father Only	*17*	*3.4*	*21*	*4.8*
Mother Only	*161*	*32.1*	*97*	*22.0*
Parent & Stepparent	*70*	*13.9*	*45*	*10.2*
Homeless	*5*	*1.0*	*7*	*1.6*
Relatives	*27*	*5.4*	*33*	*7.5*
Male/Female Friends	*8*	*1.6*	*37*	*8.4*
CSD & Foster Home	*49*	*9.8*	*42*	*9.5*

** Chi-square level of significance for Age/Persons Living With Attempter: chi = 42.9; df = 7; p = .01.*

*** 165, or 32.9%, of 502 young teens had no blood alcohol level.*

Table 48

Crosstabulation of Suicide Attempters:
Age by Factor

Factors of Youth Suicide Attempters:	*Younger*		*Older*		*Chi*	*Chi-Sq level of signif.*
	f:n	*%*	*f:n*	*%*		*p*
Peer Pressure	*7:99*	*7.1*	*7:291*	*2.4*	*4.65*	*.03*
Attempt by Friend	*2:99*	*2.0*	*4:291*	*1.4*	*.20*	***
Recent Crisis	*33:284*	*11.6*	*111:558*	*19.9*	*9.10*	*0.01*
Death in the Family	*2:99*	*2.0*	*11:291*	*3.8*	*.71*	***
General Drug Use	*15:220*	*6.8*	*58:430*	*13.5*	*6.50*	*0.01*
New School	*11:284*	*3.9*	*17:558*	*3.0*	*.40*	*0.53*
Family Discord	*81:284*	*28.5*	*179:558*	*32.1*	*1.12*	*0.29*
Problems With the Law	*1:99*	*1.0*	*13:291*	*4.5*	*2.55*	***
Pregnancy	*38:318*	*11.9*	*49:594*	*8.2*	*3.29*	*0.07*
Problems in School	*43:284*	*15.1*	*82:558*	*14.7*	*.03*	*0.86*
Rape & Sex Abuse	*9:284*	*3.2*	*24:559*	*4.3*	*.63*	*0.43*
Physical Abuse	*15:284*	*5.3*	*10:558*	*1.8*	*7.96*	*0.01*

*** *Chi-square cannot be computed because there is an excessive number of cells with low expected frequencies.*

Though not significant, it is interesting that young teens attributed their suicide attempt to a pregnancy even more often than did older teens (11.9% vs. 8.2%). It is also interesting that the percentages vary between the two groups, but trends are broadly the same.

The place of attempt, previous attempts, preferred drug, and pregnancy reflected strong but not significant differences in the responses of young teens and older teens. These four factors range in probability between .06 and .08.

Clearly significant differences were in the blood alcohol level area, where the younger teens showed a higher percentage of "None." Young teens were significantly influenced more often by peer pressure and physical abuse. Older teens were influenced by a recent crisis, or general drug use significantly more often than were younger attempters.

The attempter subgroups of Gender, Race, Race (White/Nonwhite) and Age have been compared with the social, psychological and behavioral factors identified in this study from Oregon in the years 1989 and 1990. Each subgroup is described by many factors held in common with the remainder of the attempter population, but this study identified some statistically significant findings, making the subgroups unique from others.

In the subgroup Gender, both males and females most often attempt at home, but females attempted at home 15% more often. The male attempters more often attempted at school, in jail, a public place, foster home, or on highways. Females tended to live with at least one natural parent, where as males more often lived in agency

homes. Females more often than males list rape or sexual abuse as a reason to attempt. Males show high alcohol levels, new schools, and problems with the law as influencing their suicide attempt.

In the subgroup Race, each culture had significantly more female attempters. The subgroup of Native Americans lists significantly more independent living arrangements. White youths more often live with at least one natural parent. Blacks show a higher number of previous attempts, Hispanics show the fewest. The Black population identified the largest percentage of "no alcohol."

The White/Nonwhite subgroup shows the fewest findings. The Nonwhite group shows the greatest percentage of high alcohol levels as well as the largest percentage of attempters influenced by physical abuse.

The subgroup Age is identified by a significant percentage of the younger population living with their mother only (see Table 47). This younger group lists peer pressure and physical abuse more often than the older group as a reason for their attempt. Older teens have a greater percentage of high alcohol levels, live with both parents, peers, relatives and homeless. Older teens identified a recent crisis and drug use as factors in their suicide attempt significantly more often than the younger group.

Research Question 4

Do opinions of professional suicidologists confirm the patterns of factors identified from attempters and completers in the 1989-1990 Oregon data?

A focus group was held for the purpose of confirming the findings of this study at the Days Inn, in Portland on October 25, 1995. The seven professionals were from a broad range of experiences, all within the field of youth suicide. Three were from hospital emergency rooms, two from the field of academia being authors and practitioners. One was from the field of teaching, and one school psychologist. The last participant was employed at the Oregon Department of Human Resources and was responsible for organizing the governor's task force on adolescent suicide.

The focus group began by looking at the frequency factors for the demographic materials about both attempters and completers. First examined were the materials presented to show similarities in the two groups; both predominantly White, and they both most often attempt or commit at home. Both groups build in frequency until later teen years. The most important difference is that 78.4% are female attempters and 67.5% are male completers.

The first focus group member stated, "This agrees with all of my experiences, in terms of everything I read

and all of the experience I've had clinically with this population." Others agreed. These demographics are not disputed in the literature. They served as a warm-up topic for the focus group. Everyone supported the findings; no one disagreed.

The race findings in Table 6 of attempters and the population in general provoked several comments. Everyone was surprised at the small number of minority population in 1989 and 1990. Several noted the small Asian population (2% as Other) and believed it was no longer valid. All believed they were seeing more self-mutilation coming into hospitals and clinics and particularly increasing numbers of minorities. As the group talked, it became apparent that each member was seeing a population of youth which was directly reflective of the neighborhood where they were located. The attendance in hospitals and clinics was not reflective of the city as a whole, but just the microcosm around the facilities.

There were several comments that what we see is only a portion of the attempter population. Due to fear, embarrassment, shame or even cultural mores, many attempters do not report.

The findings about both male and female attempters and completers choosing the home for suicide was important in a practical way. Given the fact that the majority of youth attempt at home, we should alert parents of at-risk

youth to safeguard the home. Removing guns, knives, drugs and alcohol from the home may in fact discourage an impulsive suicide.

The focus group then turned its attention to the descriptive attempt data. The factors used to describe the youthful suicide attempter are: female, white, may have attempted previously, may have a psychological illness, and probably claims no alcohol use. Predominantly, they do not have a single motivation.

First, the discussion centered around previous attempts. Several group members mentioned they did not doubt the numbers, but it was obvious that our interventions after the first attempt were failing:

1. The attempters are never identified by responsible adult.

2. Parents refuse to act, and no one else has the ability to do so.

3. The school and community are unaware.

4. There are far too few programs for professional help (18-month waiting list).

5. The root cause of the attempters pain is never relived.

Second, one member stated, "this study shows no gay/lesbian identification, no study of chronic or terminal illness, personality traits, and no self-esteem. Why aren't they here?" This evoked a long and heated

discussion of the lack of data regarding adolescent suicide. Comments were:

1. Too long a lag between collection and dispersal of data (over two years in Oregon).

2. Almost no data collection of facts beyond simple demographics.

3. Completer data is nonexistent.

4. Regarding the form used in this study (45-119), there is very little standardization in the manner it is filled out:

- ambiguous;
- data is old by the time it is compiled;
- the form lacks questions in important areas;
- practitioner: "Some of the things I think I know aren't there" (factors I believe are important are not on the form);
- the author of the form should have experience with children;
- questions are asked in a manner which promotes biased data.

In summation, no one disputed the expanded attempter profile; however, there is a great deal of dissatisfaction in the field with the survey instrument and what it does and does not encompass.

The focus group then moved on to the subgroup findings in the areas of gender, race, and age. This

area, included some statically significant findings for each subgroup.

Gender

Place of Attempt (p = .01); Blood Alcohol Level (p = 0.02); and Place of Residence (p = .01) all showed statistically significant differences in the way male and female attempters responded. A higher percentage of females attempted in a home environment (see Table 15). Males showed a higher frequency of attempts in school, jail, public places, or streets.

The focus group supported the findings. They attributed the difference to the American cultural expectations of males to be more independent. They believed that the male was more often unsupported and more often out of the home. A focus group member commented, "It may be that females in our culture are given more leeway before they are institutionalized or anything." Males are more quickly incarcerated for less infractions than females. Since they are more often incarcerated, they more often commit in these types of environments.

The Blood Alcohol Level (see Table 19) of males at the time of attempt is significantly higher than that of females (p = .02). Again, no one disputed the findings, but they attributed the difference to a cultural "macho" image for males which includes the use of alcohol.

Place of residence shows a significantly larger number of females living with at least one natural parent. The focus group believed this was again the male persona, or our society's expectations of males to be independent, while females remain protected longer in the home.

Race

Only one factor, physical abuse, is significantly different by Race (see Table 38). A much larger percentage of Nonwhite, three times larger than White, reported physical abuse as a factor in suicide. The focus group was somewhat unaware of the findings. Minority races are statistically rare in Oregon, particularly in 1989 and 1990. A professional suicidologist could go months without seeing a minority youth in Portland. That same professional could go years without seeing minority attempters in some parts of the state. However, the group wondered, "Is that because they (minority groups) are more often physically abused, or because it's more traumatic for them?" Some believed, "Nonwhites were less likely to report abuse."

Age

There are more older female attempters and less younger male attempters than expected (see Table 41) when divided into the two age groups. There ensued some discussion again about the small numbers involved. Focus

group people thought it was difficult to see trends from their vantage point. They see only a small number of attempters each year. This is reminiscent of the blind man and the elephant. The blind man's concept of the elephant was dependent upon the small part he could touch. Just as the suicidologists formed their opinions on small pieces of the attempt population.

Some mention was made about poor body image as an explanation for older female teens. Older teens are particularly vulnerable to eating disorders. In our culture, Caucasian females of this age are also struggling with sexual issues. No explanations were made about the younger male attempters.

In summation, the focus group supported all findings. Because of the rarity of youth suicide, they could not always see trends, but they could confirm them. Discussion was fruitful, and revealed materials that could not be gained in other ways.

The focus group also made recommendations for the use of this material in suicide prevention. This is presented in Chapter V.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This chapter contains conclusions and implications drawn from current literature, the focus group of professional suicidologists, and the researcher's 25 years of teaching, counseling, and administration within the public school system. The chapter is divided into four sections: Conclusions and Recommendations for Attempters and Completers; Recommendations for Identification, Prevention, Intervention, and Postvention in the Local School and Community; Data Collection for the State of Oregon; and Future Research.

Conclusions and Recommendations for Attempters and Completers

Conclusions and recommendations are organized and presented in order of the research questions. Findings relevant to the first research question are primarily demographic and descriptive in nature. These findings were limited by the small database available for the completer population. The data were limited both in depth and in actual number of cases (see Table 49).

Table 49

Summary of Findings

Summary: Frequency Data		
Research Question 1		
Factor	*Table*	*Findings*
Gender	*3 & 4*	*Completer: 67.5% Male* *Attempter: 78.4% Female*
Age	*3 & 4*	*Completer: 14-17 87.5%* *Attempter: 14-17 84.5%*
Race	*6*	*Both groups are reflective of the percentage of minorities in the population*
Place of Attempt	*7*	*Completer: 65% in own Home* *Attempter: 65% in own Home*
The Following is Available for Attempters Only		
Research Question 2		
Previous attempt	*8*	*30.8% have made previous attempts*
Diagnosed psychological illness	*9*	*19.4% primarily depressed*
Drug use at the time of attempt	*10*	*5.2% primarily marijuana*
Blood alcohol level at time of attempt	*11*	*41.1% had used alcohol at the time of the attempt*
Factors Attributed to Attempt		
Family Discord	*13*	*23%*
Recent Crisis	*13*	*13%*
School Problems	*13*	*11%*

Research Question 1

The first major finding is one in which the literature, focus group, and researcher strongly concur. The overwhelming majority of the total population completing suicide is male (67.5%), with females comprising 78.4% of the attempter group. As mentioned earlier, these statistics are similar among almost every

developed nation. The explanation for this behavior is varied, as well as incomplete. Males tend to use more lethal methods, resulting in a greater number of completions. Females, culturally, are often nurtured more closely, given counseling more quickly, and more often taken to the hospital for treatment when they attempt, resulting in earlier identification and more effective intervention. Culturally-based expectations of young men and young women are often used as a rationale for this notable imbalance. This study examines current practices in light of findings, but it often cannot supply an answer for the occurrence of the findings. Profiles of each group begin with the same finding: youth suicide completers are most often male; young attempters are most frequently female.

An important implication of this finding is that both sexes are at risk and must be targeted for prevention programs. Although completions are of grave importance, attempts must be taken seriously and adequately addressed. Findings indicate that almost 31% of the attempters make multiple attempts. There is no question that an attempt must be acknowledged and handled by competent professionals. Factors motivating the attempt must be confronted and de-escalated to prevent further occurrence. Secondly, the practitioners involved in the focus group consulted for this study were quick to point out that

attempts should never by minimized and often result in injuries that impair the young person permanently.

The attempter and completer data show that most suicide activity occurs between the ages of 14 and 17. These conclusions clearly indicate where we should be focusing our efforts. Prevention should begin at the elementary school level, with the majority of resources used during this period. Effective programs include instructional strategies as well as components focused on stress reduction, social skills development, and critical thinking. This might be accomplished through panel discussions and role playing activities that address common concerns such as school work, sex, parents, and sibling relationships. These activities may be used to develop coping skills and a feeling of belonging that may in fact reduce the likelihood of a suicide attempt. Other long-term prevention activities might include:

- communication skills training;
- substance abuse activities;
- career exploration activities;
- personal safety program;
- nutrition course;
- beauty and clothing instruction;
- business partnership activities.

With limited finances available for social programs, we can stretch prevention funds by targeting comprehensive

services designed to meet multiple needs. In addition, youth suicide is a reaction to an inability to solve problems or to a desire to alleviate pain. It has been the researcher's experience that problem solving and coping skills are teachable. Many programs exist to help teachers develop curriculum in these areas.

The third category in Table 49 is race. It is clear that the percentage of races in the completer and attempter pools reflect the percentages of the same minorities in the Oregon population in 1989 and 1990. The clear implication is that we should be spending our prevention and intervention dollars regardless of race. All youth are at risk for suicide, regardless of gender or ethnicity. These findings also support using the public school for identification and prevention efforts. The public school is the only institution in this country that serves most 14- to 17-year-olds on a regular basis over a period of time. School counselors, teachers, and administrators are in the best positions to identify suicidal youth prior to an attempt. School personnel need multifaceted training to prepare them to accomplish the following:

- to identify at-risk youth and to train students, teachers, other school staff, parents, and community members to be aware of suicide profiles, prodromal cues, and referral sources;

- become schooled on crisis intervention techniques, and promote the establishment of a crisis team;
- conduct postvention activities such as acting as a liaison for the school, staff, and professionals.

The last factor considered for both attempters and completers is the place of attempt. Both males and females chose the home environment for their suicide activity. This has great implications for the family of identified youth. The family has the opportunity to make their home safer than it might have been otherwise. Because suicide is often an impulsive act, limiting availability of guns, knives, pills, and poisons in the home will often allow the youth time to rethink his/her behavior. Knowing that the vast majority of suicidal acts occur at home allows the family to start a "suicide watch," and be sure the youth is not left at home alone.

Research Question 2

The following discussion involves only attempters. This is due, as discussed earlier, to the limited amount of information on the death certificate for completers. The first category for attempters is "Previous Attempt" (30.8% have previously attempted). Unfortunately because of privacy considerations, information is unavailable about whether any of the 1,150 attempters became completers. We do know from the literature that the more

attempts made by an attempter, the more likely a death or a physical disability will occur. Common sense tells us that for a variety of reasons, suicide attempters and completers are in pain. Intervention is necessary to relieve that pain or another attempt or even death will occur. Most youth reflect the health or the dysfunction of their family environment. For this reason, family counseling is the preferred mode of intervention. The development of parental awareness of the adolescent's behavior and interaction between the parents and the child, guided by the professional, can lead to an understanding of everyone's role in the behavior. A treatment plan can be formulated in light of the roles being played by family members. This treatment plan is more likely to succeed than one formulated solely by the adolescent and the professional.

Slightly less than 20% of the attempters in this study suffered from a diagnosed psychological illness. The majority of cases suffered from some form of depression or occasionally schizophrenia. These findings remind us that physicians need to be involved in prevention and intervention programs. Some youth are suffering from biological imbalances which are controllable through the use of medication. Depression is the most commonly diagnosed psychological illness among youth. Those involved with youth suicide need to be aware

that symptoms of depression displayed by youth are individual and varied. The following behaviors often point to depression in youth:

- complaints of physical illness;
- reckless behavior;
- drug abuse;
- alcohol abuse;
- lethargy;
- boredom;
- promiscuity;
- running away;
- defiance;
- poor school attendance;
- antisocial behavior.

Obviously, many of the above behaviors are commonly displayed by at-risk youth. A physician is needed to adequately evaluate behaviors and prescribe medication accordingly.

Out of the 11 suggested motivating factors, only 3 were identified by Oregon youth as having significantly influenced their decision to attempt suicide. The most frequent was "family discord." This factor is so broad it is difficult to analyze. Family discord could certainly be attributed to any of the other factors. However, the focus group concurred that for whatever reason, family discord was one of the most frequent problems they

observed. In fact, one focus group member commented that often the youth was the most stable member of the family, but was unable to cope with a highly dysfunctional family unit. This finding certainly supports the use of family intervention.

The second factor, "recent crisis," is identified 13% of the time as being a motivational factor for Oregon youth. This supports the need for teaching teens about grief, how to cope with it, and where to find professional help in their own community. Because youth have differing developmentally-based ideas about death, younger and older youth would profit from separate developmentally appropriate instruction.

"School problems" is the last factor mentioned fairly consistently by youth (11%). Considering the percentage of youth that have trouble in school, whether it is social or academic, additional funding should be spent on counselors. Counselors spend a great deal of time doing things other than meeting with students. Specific job descriptions and emphasis on direct student and family contact would help students successfully utilize some of the academic materials we are spending millions of dollars on.

Two of the final three factors occur in areas in which youth spend a great deal of time; home and school. The implication for adults in these areas is to have a

working knowledge of suicidal risk factors, prodromal cues, intervention techniques and services available in the community. These skills are necessary to identify youth at risk, and channel them into services that can adequately address their needs. The researcher notes that for some students, the public school is the only hope for identification and referral.

Perhaps the most interesting finding is that, except for pregnancy (8%), the other eight factors were selected by youth no more than 2-3% of the time. This suggests that suicide is most often motivated by multiple, complex factors, that even the attempter, or the surviving family of the completer cannot explain. The data implies that the causes of suicide in young people are highly individualized and vary by circumstance, personality, and even inner-strength.

Research Question 3

The second section of findings display statistically significant differences in the subgroups of Gender, Race, and Age (see Table 50).

Subgroups of attempters were formed by Gender, Race, and Age. There were four significantly different findings between male and female attempters. First, Place of Attempt shows significantly more females attempting at home. This further supports the concept of family

Table 50

Summary of Findings for Subgroups of Attempters

Statistically Significant Findings of Subgroups		
Factor	*Table*	*Findings*
Gender:		
Place of Attempt	*14*	*More females attempt at home (81.5%/68.3%)*
Blood Alcohol Level	*19*	*Males attempted with a more frequent and a higher blood alcohol level (6.7%/2.7%)*
Place of Residence	*21*	*A larger percentage of females living with at least one natural parent (80.3%/70.8%)*
General Drug Use	*22*	*A much larger percentage of male drug use (15.2%) to female use (7.8%)*
New School	*22*	*Larger percentage of males identified a new school as being a factor in their attempt (7.6%/2.1%)*
Race:		
Blood Alcohol Level	*33*	*Larger percentage of White with low alcohol use at time of attempt (1.7%/5.8%)*
Physical Abuse	*39*	*Larger percentage of Nonwhite report physical abuse as a reason for the attempt (7.1%/2.3%)*
Age:		
Gender	*41*	*Larger percentage of females (82.4%) in the younger group, more males (23.1%) in the older group*
Previous Attempt	*43*	*Larger percentage of younger (45.6%) than older (41.5%) had no previous attempts*
Blood Alcohol Level	*46*	*A larger percentage of the younger group (68.8%) had no blood alcohol level*
Place of Residence	*47*	*Larger percentage of older teens live with both parents (35.9%) or father only (4.8%)*
Peer Pressure	*48*	*Larger percentage of younger group list peer pressure as a factor in attempt (7.1%/2.4%)*
Recent Crisis	*48*	*Larger percentage of older teens list a recent crisis as a factor in attempt (19.9%/11.6%)*
General Drug Use	*48*	*Large percentage of older teens list drug use as a factor (13.5%/6.8%)*
Physical Abuse	*48*	*Larger percentage of young teens list physical abuse as a factor (5.3%/1.8%)*

intervention. It also supports the need to purge the house of obvious means of suicide, and reinforces the idea of not leaving the at-risk youth home alone. The fact that both males and females tend to commit suicide in the home situation more than any other place suggests the same cautions for both.

The second statistically significant finding shows males to have higher blood alcohol levels at the time of the attempt than females. This might include changing the current focus on college campuses, in fraternities, and at sporting events to alcohol-free activities. This reinforces the need to channel our resources into alcohol abuse education starting at the elementary level. Parents might also remove alcohol from their homes as well as removing lethal weapons. The combination of education and lack of access would be an appropriate approach considering the findings in this study. It is the researcher's experienced-based opinion that these actions must be accompanied by programs that enhance the family unit, teach problem solving, and develop self-esteem and the formation of values. Oftentimes communities can be helpful by providing healthy activities for youth such as:

- sports and recreation;
- community service in park or public building maintenance;

- community service with elderly or the very young in day care facilities.

Activities such as the aforementioned help build a relationship and sense of connection and ownership within the community. Being involved and helping out in their communities builds positive self-esteem in youth.

The third finding shows 10% more female attempters living with at least one natural parent. Again the implication of this finding suggests the need for intervention for all varieties of family units. Many family stresses, especially in one-parent families, originate from financial issues. Increased funding of employment opportunities, day care, and subsidized housing may actually relieve stress on the youth.

We need to be teaching parents what to say and what to watch for when they have a child at risk of suicide. Many professionals will not meet with the child until they have met with the adults in the child's life (Capuzzi, 1994). If the child chooses to confide with an adult, the adult must know how to respond. In these complex situations, a child can misinterpret a parent's lack of knowledge as rejection, resulting in harm to the child.

There are statistically significant gender-based differences in stated drug use. Males reported almost twice as much drug use as females. The male "macho" image may affect the amount of actual usage as well as the

desire to express use in males. This male "macho" image can be controlled to some degree by the media. For example, cigarette smoking is no longer socially acceptable to the degree it was in the past. Perhaps a concerted effort by the media and the purchasing public can eliminate the association of alcohol with the male image. Alcohol use can most effectively be reduced by addressing the problems and the stressors youth encounter that cause them to drink. Unemployment, poor communication and social skills, and low self-esteem are common. Availability of family and individual counseling, in conjunction with accessible and adequate social programs would help reduce the number of at-risk youth.

There was a statistically significant difference between the young men and women in their reaction to a new school. Surprisingly, males most often attributed their poor adjustment to a new school as cause for a suicide attempt. Our cultural concept of high school males and females would lead one to believe that females would be most upset by a new school. Perhaps involvement in sports programs and other activities males often enjoy are difficult to reestablish after a transfer. Possibly, adolescent males experience more difficulty than females making new friends after entering a different school. In light of these findings, we should be more cognizant of the problem. School counselors should frequently monitor

new students and evaluate each student's level of adjustment. Parents also should be made aware of possible pitfalls. The researcher has found peer counselors or peer guides effective in helping new students adjust. Family counseling might also help strengthen and enable the family unit to support each other during change.

Two significant findings appear in the area of Race. The literature suggests adolescent suicide in the United States is higher for White youth than for Black. This research clearly supports the fact that White males are the most frequent suicide completers; granted, there are more White males in the population than any minority grouping in Oregon. Some minority groups, in certain areas of the country, exceed the White youth suicide rate (Shaffer et al., 1988). The researcher notes that this study was completed in 1989 and 1990 in Oregon, at a time when the population of Oregon was almost 93% White (see Table 6). All other groups combined made up only 7% of the population. These small numbers raise questions about the two areas of findings (physical abuse and blood alcohol level) and their validity. Due to the very small populations in the minority groups, findings may be attributable to chance.

The limitations of this study of Oregon youth in 1989 and 1990 were that the population of the state at that time was so overwhelmingly White (see Table 6). The

attempt database contained 1,150 cases, but of the 1,150, the largest minority group was Hispanic, with just 36 cases. Crosstabulation and chi-square tests proved invalid because the predicted outcome left some cells too small to be valid. The results were collapsed to White and Nonwhite for significant computations, but the minority figures, although small, were interesting.

Blood alcohol level by Race is statistically significant. Note that the White population maintains the largest percentage of no alcohol, but they also maintain the highest level of use (>1.8). This seems to point to episodes of heavy alcohol consumption for White youth. Perhaps this heavy drinking is acceptable in the adolescent male "culture." Of course alcohol abuse programs are in order, but the use of alcohol is often a reflection of other problems. In the researcher's experience, services for employment, job training, child care, and parenting classes for young families may be as productive. The United States government has changed society's attitude toward cigarettes; perhaps they can do the same with alcohol use by minors.

Physical abuse is the last factor that was significantly different in the subgroup race. The Nonwhite group reported more than three times the frequency of youth who stated their suicidal attempt was a result of physical abuse. This probably stems from

cultural differences in the way Nonwhite report abuse and how they react to it. There is no way to tell from this data whether Whites receive as much abuse, and do not report it. According to the literature, White youth do receive as much abuse, and it has similar impact on them. Physical and sexual abuse lead to feelings of low personal and social competency as well as poor development of social skills (Capuzzi, 1994). These feelings relate with what we know about youth suicide. Implications suggest the need for social service agencies and schools to employee programs that will reverse these feelings in youth. We also need crisis centers in minority areas. We should encourage abuse reporting in neighborhood schools as well. Follow up on reporting by youth--including an evaluation of their situation in light of suicide risk and pre-suicidal behavior--is essential.

The last subgroup examined in this study is Age; a younger group of 12- to 14-year-olds and an older group from 15 to 17. In an effort to examine developmentally different subgroups, those less than 12 were dropped and two groups were formed from the remaining cases: the younger group with birth years from 1975 through 1977; the older group consisted of all those with a birth year of 1975 and prior. Developmental differences between the two groups have implications for curriculum and instruction. Drug and alcohol abuse related instruction should be

developmentally appropriate for each group. Younger teens should be taught ways to access help through family or school personnel. Older teens, becoming independent, need to develop a knowledge of programs and services they may access themselves. Another difference is related to the concepts of death and finality. The younger group is often unable to conceive of suicide as something they do not return from. Crisis response is also dealt with differently for the two age groups, and should be handled professionally with consideration of individual needs.

The first significant difference in the subgroup age shows the younger set having a disproportional amount of females. The first and probably most basic reason might be that females develop earlier, both physically and cognitively. This would cause them to be into peer relations and ensuing problems sooner than their male counterparts. The focus group suggests females may be taken to the hospital more frequently than males, resulting in having their attempts recorded more frequently. Females often have problems coping with physical changes such as weight, size, and bodily proportions. Decisions regarding sexual activity contribute to stress in young females. This research suggests the above topics be dealt with in elementary schools and at times separately from males.

Ten percent more younger teens were living with their mother only. As discussed earlier, many one parent families might benefit from increased social services. Social service agencies in this country maintain policies which keep younger children with natural parents when possible, and especially with mothers. Younger children could certainly benefit from supervised recreation and latchkey programs. Older children begin to experience a need for independence. This suggests that more than one type of support is needed for teens at risk of suicide. Literature indicates early intervention in the home or at school is effective for younger children, and clinics and shelters are necessary for providing counseling services to older youth as well (Hicks, 1990). Older teens may even be emancipated and in need of life skills training as well as supportive peer groups.

Peer pressure and physical abuse are significantly higher for younger teens (see Table 48). Peer pressure escalates during the 12- to 14-year-old period through independence during late teens. Youth in this age group are strongly affected by peer pressure. This has a direct bearing on the effectiveness of preventive programs. Peer counseling as well as peer training in prodromal behaviors might be effective. Group counseling that establishes support and concern from others may be useful. Teens rely a great deal on their peer group. Many at-risk youth lack

the social skills needed to form a peer group. Peer helping rallies a peer group around the at-risk youth, and models the social skills the at-risk youth may lack while offering needed support.

Occurrence of physical abuse is significantly higher with the younger group. Perhaps the older group has developed independence and moved away from the source of abuse. Social service programs are necessary for investigation and intervention purposes, however, parenting classes which teach the parent to how to discipline without abuse are the best long-range tools.

Two areas are more prevalent in the older group. First is the factor of a recent crisis. I suspect this is connected with a child's budding independence. The younger group is sheltered from some of the impact of a crisis, however, the older youth, developing independence, have distanced themselves from the family unit and accompanying support. Again, schools, churches, and shelters with open door policies are suggested as vehicles for accessing the later adolescent age group.

The last factor in the Age subgroup is general drug use. It is no surprise that the older youth are using more drugs. This is undoubtedly due to reasons connected with access and money. We need to expand and strengthen drug and alcohol abuse programs. We need to focus money and effort on keeping drugs out of the hands of youth.

Not only do drugs and alcohol change behavior, but they also rob youth of their parents' productivity, time, and money. We also need education and counseling programs to help youth meet the needs they are substituting drugs for. In an effort to bolster self-esteem, the following programs might be helpful:

- job shadowing
- work/study programs for pay
- community service
- build a home project
- ride with law enforcement officers

Research Question 4 Including Recommendations for Identification, Prevention, Intervention, and Postvention in the Local School and Community

Through this study, and others like it, risk factors and precipitating behaviors have been identified that can be used as indicators for targeting youth who may be at risk of suicide. These youth can be recommended for counseling in an effort to deter a suicide attempt or a completion. A comprehensive program needs to be implemented to assure this identification and referral process. The school and community where the adolescent lives are the appropriate environments for a program of this kind.

Although schools have been assigned child rearing duties well beyond their means, they are still the best

arena for suicide prevention. Youth spend more time at school than at their homes. Teachers and counselors can observe a student's behavior over time, becoming sensitive to changes. Teachers, counselors, and other school personnel must be taught the identifying factors and behaviors. Capuzzi (1994) acknowledged that the most effective suicide prevention tool is knowledge. If we can arm parents with the knowledge of what to look for, the initial step to prevention will have been taken. If we arm parents with the knowledge of how to help, we will have taken the second step.

Another important component to the school program is training students to be identifiers. Classes discussing risk factors and precipitating behaviors lay the groundwork for peer identification. This is especially useful in older teens who are becoming independent of family. Care needs to be taken to establish trust with adults so identification does not feel like treason, but is recognized as supportive and mature. Adding peers to the group of possible identifiers increases the probability that at-risk youth will receive the help necessary to prevent a suicide or an attempt.

Another group to be trained as identifiers are other adults and community members. The school again is an ideal gathering place for this training. Schools recognize and value support from the community and often

provide education about students needs, parenting, and sometimes instruction regarding accessing community services. We can easily add instruction focused on identifying suicidal risk, and how to access community resources.

A network of trainers needs to be formed across the state to train trainers. Oregon has a pool of private and professional suicidologists about to begin the pyramid process. The Oregon Department of Education is in an excellent position to oversee this triangle and add necessary consistency. School counselors, already reviewed by the Department of Education, form a natural second tier in the training process. The pyramid of trained identifiers can broaden to include other school staff, parents and community members. The curriculum for training and classroom instruction can be identified by the Department of Education. Classroom instruction could also be identified by Department of Education, placed in the health curriculum, and taught by the classroom teacher, the school counselor, or a trained designee. The health program should also contain instruction on drug and alcohol abuse, physical abuse, and reporting procedures. This instructional process would insure a consistent and comprehensive approach throughout the state, resulting in staff, community and students able to identify suicidal

risk in those around them and refer those at risk to the appropriate source of help.

Another component to suicide prevention in each school, or serving each school through coalitions or county agencies in rural areas, is the crisis team. The purpose of this trained group is to assist staff, students and parents in the grieving process, and to prevent further crises. The school district must, through policy, establish a trained crisis team to preplan response to a suicide or other emergency. The team is often instrumental in the training of other staff members as well as maintaining district and community awareness of youth suicide.

The role of the public school is fundamental in youth suicide prevention. Staff are trainers of student teachers and community identifiers. Schools, through curriculum, supply knowledge, the best tool of prevention. Schools provide crisis teams to handle immediate emergency situations in a preplanned manner. Crisis teams help staff, student and community work through grief, reducing the possibility of further crisis.

Communities also have specific roles to play in the prevention suicide. Hicks (1990) has comprehensively outlined these:

- identify a local task force, in conjunction with the schools, to heighten awareness regarding youth suicide;
- identify all existing services in the community (crisis line, hospitals, schools, and private practitioners;
- launch efforts to develop and expand local services where necessary;
- formulate policy calling for a joint effort between school and community leaders to address youth suicide; issues;
- provide and support all youth in an effort to gain security, a feeling of achievement, trust and friendship through community programs.

Once identification has taken place, a comprehensive intervention program including individual or group counseling is implemented. This counseling is the essence core of prevention (Capuzzi, 1994). Counseling of this nature is beyond the expertise and the parameters of the job description of school counselors. The school counselor should be in a supportive role to a clinician, and be responsible for arranging the school environment, and communicating staff observations to the clinician. The counselor should provide direct support to the student while evaluating for identifying behaviors.

Identification of risks of prime importance, but referral to professional counseling service and medical examination must follow. In Oregon these postvention services are difficult to find. The larger urban areas offer private clinicians, hospitals, and crisis programs. Granted, these programs often have long waiting lists to be admitted, but the services do exist. The researcher has found little or no services available in rural areas. This is further complicated in isolated rural areas with low economic bases and few residents maintaining health insurance. The focus group for this study mentioned the difficulty encountered even in urban areas of accessing services without insurance. Recommendations for evaluating services are included in the Recommendations for Data Collection section of this study.

Oregon is presently without a comprehensive statewide approach to youth suicide prevention. The first component, a legislative mandate instructing the Department of Education to take action, has not occurred. Coverage throughout the state is piecemeal due to this lack of action. Only recently has the Department of Human Resources mentioned a Governor's Task Force on youth suicide. The larger cities of the state (Portland, Salem, and Eugene) have incorporated suicide prevention education and crisis teams in their schools, but many of the rural, isolated districts have not. Detroit, Oregon has

experienced three student deaths in the past four years, and just this year, through help from the Marion Education Service District, has policy been formulated at the Board level to establish service within the district. This inconsistency of service throughout the state is due to lack of action and support in the legislature, the Governor's Office, and the Department of Education.

Data Collection for the State of Oregon

It is not possible to describe or to address the youth suicide problem in Oregon without adequate data. The only two existing sources of information, the Oregon Death Certificate and the Adolescent Suicide Report Form (45-119), were both used in this study. Death certificates have only minimal value, naming just four demographic factors. For purposes of research, this is of negligible value. As a focus group member said, "We can't take on the problem until we can describe it." The second source of information was designed by the Department of Human Resources for Data collection regarding adolescent suicide attempts. The first comment made by professional suicidologists in the focus group was, "why didn't they let someone from the field help design the questions." Members of the focus group, along with the researcher, unanimously agreed that the questions were inadequate and produced inadequate or just plain faulty information. In

order to improve this form, I suggest a Governor's Task Force made up of professional suicidologists, school personnel, Department of Education personnel, and the Department of Human Resource statisticians put a new form together. It will cost the state no more money to get useable information for sound decisions.

Youth suicide professionals are anxious to test the risk factors they see every day. Professionals in the focus group suggested questions regarding self-esteem, eating disorders, intolerable situations, stress or sexual identification concerns or personality traits. Other suggestions for gathering important data are: family mental health history, substance abuse in the family, and chronic depression among family members. Theses are common problems associated with suicidal youth identified both in the field and in the literature. At this time these factors are not being assessed.

Good data requires consistency. Several professionals in the focus group filled out the Adolescent Suicide form regularly, and all did so differently. We need to offer training for those filling out the form to insure consistency. Attempt or completer information is often secondhand at best. Since information about suicide is often of low quality, it is important to do the best possible job with what we have to work with.

The form is mandated by the legislature for Oregon hospitals. Why not other facilities--private hospitals, clinics, or physicians' offices? Generalizations cannot be made without looking globally at all cases. Presently, we are drawing conclusion from a partial picture.

Another concern is the lag of one to two years in getting information out of the Department of Human Resources. This is too long for those of us working in the field. The information is outdated before it is received. Professionals also want to know where the data is coming from. Is it rural? Is it urban? Is it from financially strong areas as well as weaker ones?

The focus group of professionals as well as the researcher expressed concern regarding the Department of Human Resources' zealous concern for confidentiality. Gathering the information is important, as is making it available for current use and for conducting further research. Gathering information alone is of questionable value. If the Department of Human Resources is being controlled by the legislature regarding this issue, the legislature needs to be addressed. Data need to be used by professionals in the field to warrant its collection. In this study, all personal identifiers were removed, making much of the materials unusable. A task force through the Governor's Office could address this issue as well.

Future Research

The field of youth suicide demands further research. Questions of why suicide exists are still not fully answered. The research suggests repeating this study with an improved data collection tool and revised standards of confidentiality. Statistical differences might be shown between the rural and urban areas of Oregon. Expanded data collected from new questions and more valid results from increased training in filling out the collection form are recommended. Questions regarding intervention methods and behavior that occurred following the suicidal experience would be useful. It would also be helpful to identify the attempters who became completers. An in-depth look at these cases might lead to some evaluation of the programs and processes we presently maintain.

A qualitative study of attempters and completers in Oregon is necessary. A psychological autopsy of the completers needs to be constructed through in-depth interviews with family and friends. Results of interviews with attempters and their family members could be compared. The positive benefits derived from this study significantly outweigh the negative. In addition, other states are presently conducting this type of research.

The state of Oregon needs to actively provide leadership in data collection about attempters or completers of youth suicide. The Department of Education

and other agencies must provide findings to suicidologists, counselors, school personnel, parents and communities. Distribution of findings will help assure that programs will be based on research data for our local area.

Local programs in the state of Oregon need to be evaluated as to their effectiveness and accessibility. Who is using the programs? Are they accessible to all economic levels, cultural groups, males and females? For obvious reasons it is difficult to evaluate these programs' effectiveness in determining suicide, but we can certainly look at their procedures and counseling methods. In this same vein, the state needs to be mapped as to services available. At the present time, services are certainly not distributed evenly throughout the state, and we are well aware that suicidal individuals are hesitant to seek help beyond the neighborhood in which they live.

Additional research which contributes to the description of youth attempters and completers in Oregon is welcomed. The more complete the description, the easier the identification and the more effective the prevention efforts. Present youth suicide statistics show us in a plateau. Implementation of solid programs and effective use of the knowledge we now possess could reduce youth suicide rates.

One of the newer theories of suicide revolves around a low serotonin level in the body at the time of the suicidal episode. Serotonin is a chemical produced by the body that is regulated by Prozac, as well as a factor in the new diet control suicides. A study of both attempters and completers and the serotonin level present during a suicidal episode might illuminate some new theories.

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APPENDIX A

DATA BASE CORRESPONDENCE

October 20, 1992

Mr Ed Johnson
Center for Health Statistics
800 N.W. Oregon St.
Portland, Oregon 97232

Mr Johnson:

I am writing this letter to request access to adolescent suicide data collected by the Health Division for the Oregon Vital Statistics Report under ORS 189. The material will be used to develop a research proposal for my Education Administration Doctoral Dissertation at Portland State University. I realize the sensitivity and confidentiality of the material I am requesting. I feel the contribution the findings of this research will make on the field of suicide prevention in public schools in Oregon justifies its release.

Adolescent suicide prevention in schools is based on early identification of youth who show a variety of risk factors of suicide. This "Gatekeeper" approach is identified in the "Report of the Secretaries Task Force on Youth Suicide", (1989). Various programs, directed at teachers and administrators, try to increase the sensitivity of responsible individuals to the characteristics of the suicide-prone child. School personnel are obvious gatekeepers in that they deal with youth on a regular basis, and have the opportunity to observe their behavior over time. Early identification allows the opportunity of referral to treatment, and ultimately the saving of lives.

My research questions will scrutinize this early identification "Gatekeeper" model. The following questions are proposed:

- For adolescents at risk of suicide in Oregon, is there a set of behaviors and risk factors that are significant in their regularity of occurrence?
- What did schools do regarding early identification of the specific risk factors of those youths attempting suicide in the 1989-90 school year? Were there commonalities, trends or similarities among schools regarding early identification?
- What are schools doing in planning an educational program for students after an attempt has been made.

In answering the above questions, it is hoped that recommendations may be made to Oregon Schools regarding the early identification of suicide prone students.

The methodology of the study will involve mail surveys to schools who had students who attempted suicide in the 1989-90 calendar year. A random number of these surveys will be followed up by phone or on-site interviews. Data from Form 45-119

and data collected from surveys will be processed through statistical means such as multiple regression and factor analysis. Confidentiality will be closely maintained.

All persons dealing with the study are professional and well accustomed to insuring confidentiality. Prior to working on my Ed.D., I was the Coordinator of Student Services for the Salem-Keizer School District. My responsibilities included supervision of all 63 counselors,K-12. I was also responsible for all alternative education placements both in and out of district for terminally ill and severely emotionally disturbed students.

Supervising the statistical portion of the research will be Dr. Gary Nave, Director of the Center for Urban Research in Education, CURE. Dr. Nave is an expert regarding research with at-risk students in the urban environment. These same students are heavily represented in the ranks of the adolescent suicide attempter.

Supervising the research proposal is Dave Capuzzi, Ph.D. and Assistant Dean of Education at Portland State University. Dr. Capuzzi is a noted author and expert in the field of adolescent suicide. He has just completed the "The Oregon Suicide Prevention Project: A Curriculum Guide for Middle and High School Settings", sponsored by the Oregon Department of Education. The extensive program will be presented to Oregon Middle and High Schools this fall.

In summary, this study will help the state of Oregon improve its suicide prevention program. In improving our knowledge, we stand a greater chance of early identification and referral. Education and professional counseling are our best tools to reducing an alarming adolescent suicide rate.

I look forward to your decision. Please don't hesitate to call me at 363-5239, if you have questions I might answer which would inform your decision-making process.

Sincerely,

Kathy Goss
3722 Tunbridge Wells, S.E.
Salem, Oregon 97302

~~731-4109~~
(503) 731-4084
FAX (503)
Nonvoice (503) 731-4031

Oregon

November 13, 1992

DEPARTMENT OF
HUMAN
RESOURCES

HEALTH DIVISION

Kathy Goss
3722 Tunbridge Wells, SE
Salem, Oregon 97302

Dear Ms. Goss:

I am writing to inform you of the status of your request to access adolescent suicide data collected by the Health Division. I discussed your request with my superior, David Fleming, MD, State Epidemiologist and we decided to deny your request to access individual records. I will consult with Kathleen Gaffney, MD, the State Health Officer and Deputy Administrator of the Health Division to obtain her concurrence with our decision. As I relayed to you on the phone I have not yet been able to consult with Dr. Gaffney.

Regarding the specifics of your request to me, I would like to emphasize that the process of collecting adolescent suicide data was deliberately designed not to include individual identifiers. It was the intent of the Legislature to charge the Health Division with the accumulation of aggregate data for adolescent suicide to assist in the formulation of health policy and practice for adolescents at risk in the State of Oregon. It was also the intent of the Legislature to protect the confidentiality of each individual making up the database.

I appreciate your concern and intent to help the State of Oregon improve its suicide prevention program and I agree that improved knowledge will facilitate early identification and referral. I am sure all of us agree on the necessity to reduce the current rate of adolescent suicide.

It may be necessary for another consultation regarding your project. I will know more after Dr. Gaffney has had a chance to review your request.

Sincerely,

Edward J. Johnson II
State Registrar/Manager
Center for Health Statistics
P.O. Box 14050
Portland, OR 97214-0050
EJJ:ved

Barbara Roberts
Governor

800 NE Oregon Street # 21
Portland, OR 97232
(503) 731-4030 Emergency
(503) 252-7978 TDD
Emergency

24-26 (Rev. 1-92)

~~731-4109~~
(503) 731-4084
FAX (503)
Nonvoice (503) 731-4031

Oregon

DEPARTMENT OF
HUMAN
RESOURCES

HEALTH DIVISION

November 17, 1992

Kathy Goss
3722 Tunbridge Wells, SE
Salem, Oregon 97302

Dear Ms. Goss:

This is a follow-up to my letter of November 13th. I have talked with Dr. Gaffney regarding your project. She concurs with the decision not to release to you the individual records which make up the adolescent suicide database.

I regret to inform you, therefore, that the Center for Health Statistics cannot grant your request to access the individual records which make up the adolescent suicide database. As I explained in my letter of November 13th such access would violate the confidentiality of individuals in the database.

Sincerely,

Edward J. Johnson II
State Registrar/Manager
Center for Health Statistics
P.O. Box 14050
Portland, OR 97214-0050

EJJ:ved

Barbara Roberts
Governor

800 NE Oregon Street # 21
Portland, OR 97232
(503) 731-4030 Emergency
(503) 252-7978 TDD
Emergency
24-26 (Rev. 1-92)

January 8, 1993

Mr. Ed Johnson
Center for Health Statistics
800 N. W. Oregon St.
Portland, Oregon 97232

Mr. Johnson:

Since receiving your mid-November decision not granting my request for access to the adolescent suicide database maintained by your department, I have spent a good deal of time revising my dissertation proposal to comply with legislative intent as well as Health Division policy. I have revised the focus of my dissertation to one of identifying an Oregon Adolescent Suicide Profile. The Oregon profile will then be compared to national data to identify the unique characteristics of our population.

I would like to do some comparative statistics with the following factors from Form 45-119, Adolescent Suicide Attempt Report. I have not asked for factors which might lead to individual, school or neighborhood identification. I am requesting access to the database for the following factors:

2. DATE OF ATTEMPT
5. DATE OF BIRTH
6. SEX
7. RACE
9. PATIENT LIVES WITH
10. PLACE OF ATTEMPT
11. METHOD OR METHODS USED
12. PAST HISTORY OF MAJOR PSYCHOLOGICAL ILLNESS
13. PATIENT USING DRUGS
14. USE OF ALCOHOL DURING ATTEMPT
15. PREVIOUS ATTEMPTS IN LAST FIVE YEARS
16. HISTORY OF PERSONAL CRISIS

The emerging profile and any comparative information between factors will be useful to private as well as public practitioners concerned with early identification. As mentioned in my previous request, I have an interest in the "gatekeeper" role of public school personnel. An adolescent suicide profile consisting of data from our own region would be extremely helpful in the type of program being implemented in Oregon Schools by the Department of Education.

As before, Dr. Gary Nave, Director of the Center for Urban Research in Education, CURE, will be supervising the statistical portion of the project. Dave Capuzzi,

Ph.D., Assistant Dean of Education at Portland State University and noted author on adolescent suicide will oversee the full project. Dr. Capuzzi is at the present time implementing the "Oregon Suicide Prevent Project" for the Department of Education. This curriculum guide is being implemented in middle and high schools.

In summary, I have tried to design the study so it will not compromise any policies or intents, but still maintain credibility and usefulness. This study will involve no field work, nor any contact with individuals, schools or communities.

I would appreciate your quick decision. Please don't hesitate to call me at 363-5239 if I might answer any question which would inform your decision-making process.

Sincerely,

Kathy Goss
3722 Tunbridge Wells S.E.
Salem, Oregon 97302

APPENDIX B

ATTEMPTER DATABASE CODING

Kathy Goss

Sample: 1150 < 18 year old suicide attempters as reported by emergency room personnel in Oregon during 1989 or 1990.
24 Variables

VARIABLES: DB1

ATTEMPT MONTH: (ATTMONTH)

1-12 Actual months

ATTEMPT PLACE (ATTPLACE)

0 other
1 own house
2 another's house
3 school
4 jail
5 other institution
6 public place
7 foster home
8 street or highway
9 unknown

PREVIOUS ATTEMPT: (ATTPREV)

0 no previous attempt
1 previous attempt
2 previous attempts
3 previous attempts
4 previous attempts
5 over four previous attempts
8 previous attempt/attempts, number unknown
9 not stated
99 UNKNOWN

FAMILY DISCORD: (FAMDISC)

0 no family
1 yes
2 no
3 unknown

VICTIM LIVES WITH: (LIVESWIT)

0 other
1 both parents
2 father only
3 mother only
4 parent and step-parent
5 homeless

6 relatives
7 friend including boy/girl
8 CSD, foster or JDH
9 unknown

MEDICAL PRESCRIPTION (MEDPRE)

1 yes
2 no
9 Unknown

PROBLEMS WITH SCHOOL

1 yes
2 no
9 unknown

SEX: (SEX)

1 male
2 female
3 unknown

DRUG USE GENERALLY: (TYPEDR)

0 none
1 marijuana
2 cocaine/crack
3 amphetamine, crank, speed, tranquilizers
5 LSD
8 other or multiple uses
9 unknown

PEER PRESSURE AS REASON: (PEERPR)

. none
1 yes a factor
2 not a factor
9 unknown

PHYSICAL ABUSE: (PHYSAB)

1 yes
2 no
9 unknown

PREGNANT: (PREGNAT)

1 yes
2 no
9 unknown

PROBLEMS WITH THE LAW: (PROBLAW)

1 yes
2 no
9 unknown

EXISTING DIAGNOSED PSYCHOLOGICAL ILLNESS: (PSYILL)

0 none
1 chronic depression
2 bi-polar depression
3 depression
4 schizophrenia
8 other or multiple of above
9 unknown

RACE: (RACE)

1 White
2 Black
3 Indian
4 Chinese
5 Japanese
6 Hawaiian
7 Unknown
8 Filipino
9 Hispanic
0 Other Asian & PI

RAPE, SEXUAL ABUSE: (RASEXAB)

1 yes
2 no
9 unknown

RECENT HISTORY OF PERSONAL CRISIS: (CRISIS)

1 yes
2 no
9 unknown

RECENT DEATH OF A FRIEND/FAMILY MEMBER: (DETHFAM)

1 yes
2 no
9 unknown

DRUG USE GENERALLY: (DRUGUSE)

1 yes
2 no
9 unknown

DRUG USE AT TIME OF THE ATTEMPT: (DRUSE)

1 yes, stated
2 yes, suspected
3 no
9 unknown

ALCOHOL BLOOD LEVEL AT TIME OF ATTEMPT: (ALCOHOLL)
CODED FOR ACTUAL BLOOD/ALCOHOL

ALCOHOL USE GENERALLY: (ALCOHOL)

1 yes, stated
2 yes, suspected
3 no
9 unknown

METHOD OF ATTEMPT: (METHOD)
11 options from ICU list

APPENDIX C

COMPLETER DATABASE CODING

Kathy Goss

Sample: 40 < 18 year old suicide completers as reported on Death Certificates in Oregon during 1989 or 1990.

VARIABLES: DB2

DATE OF DEATH:
Mo., Day, Yr.

DATE OF BIRTH:
Mo., Day, Yr.

INJURY DATE:
Mo., Day, Yr.

INJURY PLACE:
0 Home
1 Farm
2 Mine or quarry
3 Industrial Place
5 Street
8 Other

Race:
1 White
2 Black
5 Japanese

Sex:
1 Male
2 Female

Method: By 4 digit ICU designations

APPENDIX D

MANDATED COLLECTION FORM AND ORS 189

Oregon Department of Human Resources
HEALTH DIVISION

ADOLESCENT SUICIDE ATTEMPT REPORT

1. NAME OF HOSPITAL _____ 2. DATE OF SUICIDE ATTEMPT ___/___/___ (Month Day Year)

3. ADMITTED AS AN IN-PATIENT? Yes ____ No ____ Admitted to another hospital ____

4. PATIENT OR HOSPITAL CHART # _____ 5. DATE OF BIRTH ___/___/___ (Month Day Year)

6. SEX: M ____ F ____ 7. RACE: White ____ Black ____ American Indian ____ Hispanic ____ Other (Specify) _____

8. PLACE OF RESIDENCE: City _____ County _____

9. PATIENT LIVES WITH: Both Parents ____ Father Only ____ Mother Only ____ Foster Parent(s) ____ Friend(s) ____
Parent and Stepparent ____ Other (Homeless, juvenile shelter, etc.; specify) _____ Unknown ____

10. PLACE OF ATTEMPT: Own home ____ Another's home ____ School ____ Other (Specify) _____

11. METHOD OR METHODS USED IN ATTEMPT:

POISONING by solid or liquid substance (e.g. drug overdose, alcohol, toxic substance, etc.).
Specify substance used: _____

HANGING OR SUFFOCATION (e.g. plastic bag, etc.). Specify: _____

FIREARMS AND EXPLOSIVES. Specify type (handgun, shotgun, rifle, other) *and* body site: _____

CUTTING OR PIERCING. Specify instrument *and* body site: _____

JUMPING (e.g. from building, bridge, cliff, etc.). Specify: _____

OTHER MEANS (e.g. fire, motor vehicle crash, electrocution, drowning, poisoning by domestic gas or motor vehicle exhaust, etc.).
Specify: _____

12. PAST HISTORY OF MAJOR PSYCHOLOGICAL ILLNESS:

A. Chronic depression ____ Bipolar depression ____ Schizophrenia ____ Other (Specify) _____ None ____ Unknown ____

B. If illness present, was medication prescribed? Yes ____ No ____ Unknown ____

13. EXCLUDING DRUGS USED TO OVERDOSE (ITEM 11) OR PRESCRIBED FOR THIS PATIENT (ITEM 12), WAS THE PATIENT USING OTHER DRUGS (e.g. marijuana, cocaine, amphetamines, opiates) WHEN THIS ATTEMPT WAS MADE?

A. Yes (stated) ____ Yes (suspected) ____ No ____ Unknown ____

B. If yes, specify drug (if known) _____

14. HAD THE PATIENT BEEN DRINKING ALCOHOL WHEN THIS ATTEMPT WAS MADE?

A. Yes (stated) ____ Yes (suspected) ____ No ____ Unknown ____

B. Blood alcohol content (if tested) = _____ mg %

15. WERE PREVIOUS SUICIDE ATTEMPTS MADE IN LAST 5 YEARS?

A. Yes ____ No ____ Unknown ____

B. If yes, number of previous attempts (if known) _____

16. RECENT HISTORY OF PERSONAL CRISIS: Family discord ____1 Argument or breakup with boyfriend or girlfriend ____2
Peer pressure/argument ____3 School problems ____4 Rape/Sexual abuse ____5 Pregnancy ____6 Physical abuse ____7
Move/New school ____A Problems with the law ____B Death of friend/family member ____C Suicide or attempt by friend/relative ____E
Substance abuse (specify) _____D Other (specify) _____8
None ____C Unknown ____9

17. NAME OF PERSON COMPLETING THIS REPORT: _____ TITLE/DEPT: _____

ORS 189 states that "Any hospital which treats as a patient a person under 18 years of age because the person has attempted to commit suicide shall report statistical information to the Health Division of the Department of Human Resources about the person . . ."

MAIL THIS FORM NO LATER THAN THE 15TH OF THE MONTH FOLLOWING THE MONTH OF THE ATTEMPT TO:

Center for Health Statistics
PO Box 116
Portland, OR 97207-0116
Telephone (503) 229-5897

CENTER FOR HEALTH STATISTICS
P.O. BOX 14050
PORTLAND, OREGON 97214-0050

HD Form 43-11D (Rev 9-90)

day the violation occurs in an amount not to exceed $500 per day.

(2) The penalties assessed under subsection (1) of this section shall not exceed $6,000 in the aggregate or as otherwise required by federal law with respect to a single long term care facility within any 90-day period. [1975 c.328 §2; 1977 c.261 §9; 1979 c.261 §9; 1987 c.428 §38; 1993 c.759 §17]

Note: See note under 441.705.

441.720 Remittance or reduction of penalties. A civil penalty imposed under ORS 441.710 may be remitted or reduced upon such terms and conditions as the Assistant Director for Senior and Disabled Services considers proper and consistent with the public health and safety. [1975 c.328 §3; 1987 c.428 §39]

Note: See note under 441.705.

441.725 [1975 c.328 §4; 1985 c.648 §3; 1987 c.428 §40; repealed by 1993 c.759 §19]

441.730 [1975 c.328 §5; repealed by 1977 c.261 §11]

441.735 [1975 c.328 §6; 1977 c.261 §10; 1989 c.706 §13; repealed by 1991 c.734 §122]

441.740 Judicial review. Judicial review of civil penalties imposed under ORS 441.710, shall be as provided under ORS 183.480, except that the court may, in its discretion, reduce the amount of the penalty. [1975 c.328 §7]

Note: See note under 441.705.

441.745 Penalties to General Fund. All penalties recovered under ORS 441.710 to 441.740 shall be paid into the State Treasury and credited to the General Fund. [1975 c.328 §8]

Note: See note under 441.705.

SUICIDE ATTEMPTS BY MINORS

441.750 Suicide attempts by minors; referral; report; disclosure of information; limitation of liability. (1) Any hospital which treats as a patient a person under 18 years of age because the person has attempted to commit suicide:

(a) Shall cause that person to be provided with information and referral to in-patient or out-patient community resources, crisis intervention or other appropriate intervention by the patient's attending physician, hospital social work staff or other appropriate staff.

(b) Shall report statistical information to the Health Division of the Department of Human Resources about the person described in this subsection but is not required to report the name of the person.

(2) Any disclosure authorized by this section or any unauthorized disclosure of information or communications made privileged and confidential by this section shall not in any way abridge or destroy the confidential or privileged character thereof except for the purposes for which any authorized disclosure is made. Any person making a disclosure authorized by this section shall not be liable therefor, notwithstanding any contrary provisions of law.

(3) No physician, hospital or hospital employee shall be held criminally or civilly liable for action pursuant to this section, provided the physician, hospital or hospital employee acts in good faith on probable cause and without malice. [1987 c.189 §1]

Note: 441.750 and 441.755 were enacted into law by the Legislative Assembly but were not added to or made a part of ORS chapter 441 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

441.755 Report form; contents. (1) The Health Division of the Department of Human Resources shall prescribe a form to be used by hospitals to make the report required by ORS 441.750 (1)(b) and shall prescribe the frequency of such reports.

(2) The report form may include the name of the hospital reporting, the date of birth, race and sex of person described in subsection (1) of this section, the suicide method used by the person and known prior attempts in the past 12 months.

(3) The Health Division shall compile the results from the reports and report the results to the public. [1987 c.189 §2]

Note: See note under 441.750.

441.810 [Formerly 441.510, repealed by 1979 c.284 §199]

MISCELLANEOUS

441.815 Smoking of tobacco in certain hospital rooms prohibited. (1) No hospital employee, patient or visitor shall smoke any cigar, cigarette or tobacco in any form in any:

(a) Room of the hospital in which more than one patient is accommodated, unless the room is specifically designated for smoking; or

(b) Other areas where patient care is provided in the hospital.

(2) The administrator or person in charge of a hospital shall designate reasonable areas in lobbies and waiting rooms where smoking is not permitted.

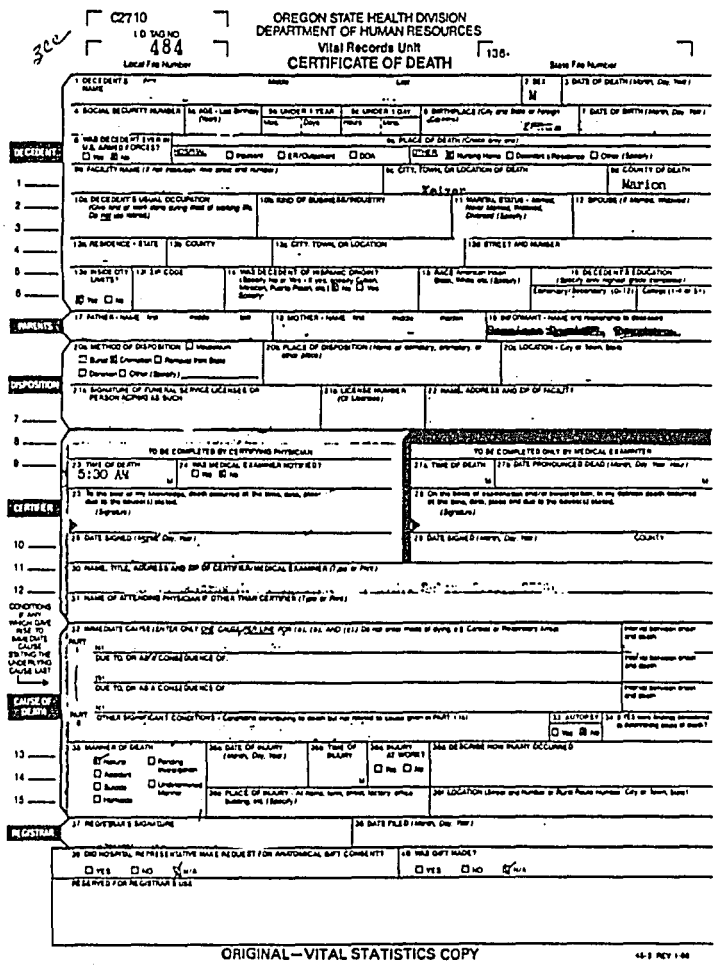
(3) The administrator or person in charge of the hospital shall designate a reasonable number of rooms in the hospital where smoking is not permitted.

(4) As used in this section, "hospital" has the meaning given the term in ORS 442.015. [Formerly 441.515; 1977 c.173 §1; 1983 c.740 §160]

APPENDIX E

COMPLETER FORM (CERTIFICATE OF DEATH)

CERTIFICATION OF VITAL RECORD



C2710
I.D. TAG NO.
484
Local File Number

OREGON STATE HEALTH DIVISION
DEPARTMENT OF HUMAN RESOURCES
Vital Records Unit
CERTIFICATE OF DEATH

136-
State File Number

DECEDENT
NAME
SEX
M
DATE OF DEATH
SOCIAL SECURITY NUMBER
AGE - Last Birthday
UNDER 1 YEAR
UNDER 1 DAY
BIRTHPLACE
DATE OF BIRTH
PLACE OF DEATH
HOSPITAL
Inpatient
ER/Outpatient
DOA
OTHER
Nursing Home
Decedent's Residence
Other
FACILITY NAME
CITY, TOWN, OR LOCATION OF DEATH
Keizer
COUNTY OF DEATH
Marion
USUAL OCCUPATION
KIND OF BUSINESS/INDUSTRY
MARITAL STATUS
SPOUSE
RESIDENCE - STATE
COUNTY
CITY, TOWN, OR LOCATION
STREET AND NUMBER
INSIDE CITY LIMITS?
ZIP CODE
WAS DECEDENT OF HISPANIC ORIGIN?
RACE
DECEDENT'S EDUCATION
FATHER - NAME
MOTHER - NAME
INFORMANT

METHOD OF DISPOSITION
Burial
Cremation
Removal from State
Donation
Other
PLACE OF DISPOSITION
LOCATION - City or Town, State
SIGNATURE OF FUNERAL SERVICE LICENSEE OR PERSON ACTING AS SUCH
LICENSE NUMBER
NAME, ADDRESS AND ZIP OF FACILITY

CERTIFIER
TO BE COMPLETED BY CERTIFYING PHYSICIAN
TIME OF DEATH
5:30 AM
WAS MEDICAL EXAMINER NOTIFIED?
DATE SIGNED
NAME, TITLE, ADDRESS AND ZIP OF CERTIFIER
NAME OF ATTENDING PHYSICIAN

TO BE COMPLETED ONLY BY MEDICAL EXAMINER
TIME OF DEATH
DATE PRONOUNCED DEAD
DATE SIGNED
COUNTY

CONDITIONS IF ANY WHICH GAVE RISE TO IMMEDIATE CAUSE STATING THE UNDERLYING CAUSE LAST

CAUSE OF DEATH
PART I
DUE TO, OR AS A CONSEQUENCE OF
DUE TO, OR AS A CONSEQUENCE OF
PART II
OTHER SIGNIFICANT CONDITIONS
AUTOPSY
WERE FINDINGS CONSIDERED IN DETERMINING CAUSE OF DEATH?

MANNER OF DEATH
Natural
Accident
Suicide
Homicide
Pending Investigation
Undetermined
DATE OF INJURY
TIME OF INJURY
INJURY AT WORK?
DESCRIBE HOW INJURY OCCURRED
PLACE OF INJURY
LOCATION

REGISTRAR
REGISTRAR'S SIGNATURE
DATE FILED

DID HOSPITAL REPRESENTATIVE MAKE REQUEST FOR ANATOMICAL GIFT CONSENT?
YES
NO
N/A
WAS GIFT MADE?
YES
NO
N/A
RESERVED FOR REGISTRAR'S USE

ORIGINAL—VITAL STATISTICS COPY

THIS IS A TRUE AND EXACT REPRODUCTION OF THE DOCUMENT OFFICIALLY REGISTERED AT THE OFFICE OF THE MARION COUNTY REGISTRAR

DATE ISSUED APR 5 1988

RUTH A JOHNSON
COUNTY REGISTRAR
MARION COUNTY, OREGON

ANY ALTERATION OR ERASURE VOIDS THIS CERTIFICATE